EXPLORING THE POSSIBILITIES OF BLENDED LEARNING IN HIGHER EDUCATION INSTITUTIONS IN LESOTHO

by

SETHO JOHN MOKHETS'ENGOANE

Submitted in accordance with the requirements

for the degree of

DOCTOR OF PHILOSOPHY

In the subject

EDUCATION

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROF MPHO-ENTLE PULENG MODISE

DATE: 27 NOVEMBER 2025

DECLARATION BY STUDENT

Name: Setho John Mokhets'engoane

Student number: 24666300

Degree: PhD (Education)

I declare that the Thesis titled ***"Exploring the possibilities of blended learning in higher education institutions in Lesotho"*** is my original work done under the guidance of Prof. Mpho-Entle Puleng Modise.

I further declare that its materials have not been submitted before in full or in part, for the award of any academic qualifications at any other University.

I further declare that all the sources used have been indicated and acknowledged using a complete list of references.

I further declare that I submitted the Thesis to Turnitin for originality checking and that it falls within the University's accepted requirements for originality (Annexure 10).

Signature

25 November 2025

Date

DECLARATION BY SUPERVISOR

I, Prof. Mpho-Entle Puleng Modise, declare that the thesis has been submitted to originality checking software (Annexure 10).

The thesis was submitted with my approval.

_____ 27 November 2025

Signature Date

ABSTRACT

This study explored the possibilities of implementing blended learning in higher education institutions in Lesotho. Guided by the Community of Inquiry (CoI) and the Unified Theory of Acceptance and Use of Technology (UTAUT) frameworks, the research sought to examine the nature of blended learning within Lesotho's higher education system, explore lecturers' and students' perceptions of factors affecting its implementation, determine best practices for learner support and to propose practical guidelines for its effective adoption. The study employed a convergent parallel mixed-methods design collecting data through document analysis, semi-structured interviews, and student questionnaires.

The findings revealed that blended learning is conceptually recognised within both national and institutional policy documents including the Higher Education Policy (2013) and the Open Distance Learning Policy (2022) yet its operationalisation remains inconsistent. Lecturers demonstrated positive attitudes towards blended learning as they recognised its potential for flexibility and active learning. However, they highlighted persistent barriers such as unreliable internet connectivity, limited digital competence, and weak institutional support. Students reported generally positive perceptions with strong teaching and cognitive presence, though social interaction and peer engagement were found to be limited. This research contributes to the discourse on blended learning in developing contexts and provides a roadmap for HEIs in Lesotho to enhance educational quality through innovative teaching and learning approaches.

Drawing from these findings, the study developed the Lesotho Blended Learning Readiness and Implementation Model (L-BLRIM) which is a cyclic framework comprising five interdependent components. The model and its accompanying practical guidelines provide a contextually grounded roadmap for transforming blended learning from policy aspiration to sustainable practice. The study concludes that achieving successful blended learning in Lesotho requires coordinated leadership, equitable infrastructure, continuous professional development and, most importantly, a culture of reflective evaluation.

Keywords: Blended learning, higher education, online learning, distance learning, technology-enhanced learning, e-learning, Lesotho, digital pedagogy, technology integration, student engagement

KAKARETSO (SESOTHO)

Boithuto bona bo hlahlobile menyetla ea ho kenya ts'ebetsong thuto e kopaneng (*blended learning*) litsing tse phahameng tsa thuto naheng ea Lesotho. E tataisitsoe ke maoa a kang Community of Inquiry (CoI) le Unified Theory of Acceptance and Use of Technology (UTAUT). Liphuputso tsena li ikemiselitse ho hlahloba mofuta oa thuto e kopaneng tsamaisong ea thuto e phahameng ea Lesotho, ho hlahloba maikutlo a barupeli le baithuti ka lintlha tse amang ts'ebetso ea eona, ho fumana mekhoa e metle ea tšehetso ea baithuti, le ho hlahisa tataiso e sebetsang bakeng sa ts'ebetso e atlehileng. Boithuto bo sebelisitse moralo o kopaneng oa mekhoa e fapaneng (convergent parallel mixed-methods design), ka ho bokella lintlha ka tlhahlobo ea litokomane, lipuisano tse hlophisitsoeng, le lipotso tsa baithuti.

Liphuputso li fumane hore thuto e kopaneng e amoheloa ka molao litokomaneng tsa maano a naha le tsa litsi tsa thuto tse kang *Higher Education Policy (2013)* le *Open Distance Learning Policy (2022)*, leha ts'ebetso ea eona e ntse e sa tsitsa. Barupeli ba bontšitse maikutlo a matle mabapi le thuto e kopaneng kaha ba bone menyetla ea eona ea ho fana ka bolokolohi le ho kenya letsoho ha baithuti. Leha-ho-le-joalo, ba totobalitse mathata a ntseng a tsoela pele a kang inthanete e sa tsitsang, bokhoni bo fokolang ba marangrang, le tšehetso e fokolang ea litsi tse amehang. Baithuti le bona ba bontšitse maikutlo a matle ka kakaretso, ba bontša boteng bo matla ba ho ruta (teaching presence) le ho nahana ka botebo (cognitive presence), leha puisano le tšebelisano ea lithaka li fumanoe li fokola (social presence). Boithuto bona bo kenya letsoho lipuisanong tsa thuto e kopaneng maemong a linaha tse ntseng li hōla, 'me e fana ka moralo o hlophisitsoeng bakeng sa litsi tsa thuto e phahameng ho ntlafatsa boleng ba thuto ka mekhoa e mecha ea ho ruta le ho ithuta.

Ho ipapisitsoe le sephetho sena, liphuputso li hlahisitse Lesotho Blended Learning Readiness and Implementation Model (L-BLRIM) e leng mohlala o potolohang o nang le likarolo tse hlano tse hokahaneng. Moetso ona hammoho le tataiso ea oona e sebetsang,

li fana ka tsela e ipapisitseng le maemo a Lesotho bakeng sa ho fetola thuto e kopaneng hore e se ke ea lula e le toro ea maano empa e be ts'ebetso e tsitsitseng. Boithuto bona bo phethela ka hore katleho ea thuto e kopaneng naheng ea Lesotho e hloka boetapele bo kopaneng, lisebelisoa tse lekanang, koetliso e tsoelang pele ea barupeli, 'me holim'a tsohle, tloaelo ea ho hlahloba le ho ithuta ka mehla.

DEDICATION

This research is lovingly dedicated to my mother—my first teacher, my greatest supporter, and my unwavering source of strength.

Your sacrifices, prayers, and endless love have carried me through every challenge. It is because of your resilience, wisdom, and encouragement that I am who I am today.

This work reflects your faith in me, and I hope it makes you proud.

Kea u leboha 'Me’ Mats’ele.

ACKNOWLEDGEMENTS

My deepest gratitude to God Almighty for planting a seed of life in me and for giving me the strength and resilience to complete this thesis.

- I wish to express my deepest gratitude to my supervisor, Prof. Mpho-Entle Puleng Modise, for her undoubtable guidance, motivation and for the deprivation she suffered when I claimed most of her time in a bid to marshal the thoughts that culminated to this didactic piece of work. Your insights and mentorship have been instrumental in shaping this study. You are AMAZING!
- I am sincerely thankful to my colleague, Dr. Letseka-Manka, whose unwavering encouragement and belief in my potential inspired me to pursue the path of blended learning. Your push in the right direction laid the foundation for this work. I am grateful to Ms Lipolelo Thamae for her undoubtable support in the quantitative aspect of this study.
- How could I forget my dearest and amazing friend, Dr. Tlalane Mosae? Thank you for being a constant source of inspiration, wisdom, and unwavering friendship. Your presence in my life continues to be a gift that enriches both my personal and academic journey.
- Special appreciation goes to my colleagues at 'Makhethisa High School for their support and motivation. I would like to especially acknowledge Masehlabaka Mokati, Lehlohonolo Kurata, and Mrs. Selialia Mampota for walking this journey with me. Your encouragement and belief in my capabilities kept me focused and driven.
- Special thanks to all my colleagues at NUL who always inspired us to excel in our journey. (PhD Outing)
- To my beloved wife, thank you for your endless patience, love, and understanding. Your support provided the emotional strength I needed to stay committed to this work.
- Lastly, I extend my heartfelt gratitude to my mother and brothers. Your prayers, encouragement, and unwavering support have always been my backbone. I am truly blessed to have you in my life.
- Finally, with the deepest gratitude, I wish to thank every person who has come into my life and inspired, touched, and illuminated me through their presence**.** I thank you all.

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS USED IN THE STUDY

UNESCO – United Nations Educational, Scientific and Cultural Organization

UNICEF – United Nations International Children's Emergency Fund

UTAUT – Unified Theory of Acceptance and Use of Technology

CABLS – Complex Adaptive Blended Learning System

CPD – Continuous Professional Development

CHE – Council on Higher Education

CoI – Community of Inquiry

HEIs – Higher Education Institutions

SPSS – Statistical Package for Social Sciences

ODL – Open Distance Learning

SADC – Southern African Development Community

RISDP – Regional Indicative Strategic Development Plan

P4C – Philosophy for Children

CMC – Computer-Mediated Communication

LBLRIM – Lesotho Blended Learning Readiness and Implementation Model

LIST OF FIGURES

LIST OF TABLES

LIST OF ANNEXURES

CHAPTER 1

ORIENTATION AND BACKGROUND OF THE STUDY

"Education is the most powerful weapon which you can use to change the world." Nelson Mandela

1.1 INTRODUCTION

The 21st century has witnessed a significant transformation in higher education, with the adoption and integration of technology in the classroom (Graham & Halverson, 2023). Recently, there has been a growing interest in higher education adopting flexible teaching and learning modes to cater to students' demands. Along similar lines, Modise (2022) highlights that due to institutions of higher learning being confronted with numerous challenges of providing quality education to students amidst the digital technology explosion, blended learning has emerged as a promising solution. In support of this view, leading organisations such as the United Nations Educational, Scientific and Cultural Organization ([UNESCO], 2020) and the United Nations International Children's Emergency Fund ([UNICEF], 2020) point out that the emergence of COVID-19 accelerated the integration of digital technologies in higher education globally. What is further denoted by these organisations is that despite the challenges posed by the pandemic, teaching and learning continued in institutions of higher learning as they migrated to blended learning that included e-learning.

In alignment with Chere-Masopha (2018) and Modise (2022), the labour market now demands a workforce equipped with digital knowledge and skills to operate sophisticated devices. Therefore, the primary goal of higher education institutions (HEIs) is to cultivate learners' knowledge and skills to thrive in the 21st century. As a consequence of the ongoing digital transformation, significant changes have been occurring in HEIs worldwide. However, it is crucial to acknowledge some of the challenges that came when HEIs became digitally transformed. Makumane et al. (2023) have underscored the digital divide as a significant challenge arising from the proliferation of technology, particularly in developing countries such as Lesotho. Additionally, the implementation and

maintenance of digital infrastructure can be expensive, particularly for institutions with limited budgets, which may impede the successful integration of advanced technologies and innovative solutions in the HEI context.

Despite the challenges posed by digital transformations, researchers in HEIs are convinced that it is imperative to introduce blended learning as it offers several benefits (Bryan & Volchenkova, 2016; Mokenela, 2019; Nkhi et al., 2023; Molefi & Ayanwale, 2023). Makumane et al., (2023) further accentuate that successful implementation of blended learning could bridge the digital divide exacerbated by the COVID-19 pandemic. In this context, Lesotho is no exception as the higher education policy supports the integration of blended learning in HEIs (Council on Higher Education [CHE], 2013). The motivation for this study stemmed from the aspiration to enhance educational opportunities in Lesotho. Recognising the potential of blended learning to address barriers in traditional education still prevalent in many Lesotho HEIs, this study explored its applicability and effectiveness in education. The study also aimed to contribute to educational practices that will empower students with access to quality education.

Against this backdrop, the study explored the possibilities of blended learning in higher education institutions in Lesotho and determined implications for effective implementation. The research was further aimed at assisting HEIs in Lesotho to adopt and promote blended learning by incorporating stakeholder perspectives and developing practical guidelines. In addition, the study aimed to equip HEIs with the necessary knowledge and tools to create a more inclusive, adaptable, and technologically advanced educational environment for realising blended learning.

1.2 BACKGROUND TO THE STUDY

The rapid evolution of technology is driving significant changes in HEIs globally (Toquero, 2020; Alasoluyi, 2021). This evolution highlights the opportunities presented by digital technologies for educational delivery, with blended learning emerging as an appealing option. Makafane and Chere-Masopha (2021) underscored in their study that Lesotho is experiencing a rising interest in leveraging technology for education, especially in HEIs.

This situation, therefore, makes it imperative to explore the possibilities of HEIs in promoting blended learning in Lesotho.

While the world was convinced that the 21st century poses lasting challenges, the United Nations (UN) Member States, including Lesotho as a signatory, endorsed the 2030 Agenda for Sustainable Development, which comprises 17 goals. The primary aim of this agenda is to address social, economic, and environmental issues while promoting overall sustainability. One of the key Sustainable Development Goals (SDGs) that countries must strive to achieve is SDG4, which seeks to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2017, p.10). To further comprehend SDG4, Stabback (2016) explains that quality education “enables students to develop knowledge, skills, and values, capabilities and competencies to lead meaningful and productive lives” (p.8). The elucidations by Stabback (2016) concur with UNESCO’s (2015) stance that quality education necessitates a relevant, up-to-date, inclusive, and flexible curriculum that is learner-centred and socio-economically beneficial.

It is crucial to note that in the pursuit of quality education, countries globally have introduced alternatives to make education accessible, relevant, and flexible to their citizens. One such alternative learning mode that has gained prominence in the 21st century and post-COVID-19 pandemic is blended learning in HEIs (Commonwealth of Learning [COL], 2022). Blended learning has been found to offer a flexible mode of learning that enables teachers to adapt quickly to the needs of individual students. Unlike traditional teaching methods that are aimed at the "middle" ability level of the class, blended learning allows teachers to use online tools to customise instruction and practice for each student's unique needs (Nkhi et al., 2023).

To better understand blended learning and its application in contemporary HEIs, it is also essential to provide its overview. Moore and Kearsley (2011) contend that as the internet grew, so did the acceptance of distance learning, given the emergence of new terminologies like e-learning, online learning, and web-based learning. Subsequently, many researches were conducted comparing online learning with traditional brick-and-mortar classrooms. While many scholars were debating on the best approach to learning,

Güzer and Caner (2014) contend that blended learning emerged in 2000 as the eclectic approach. The blended learning approach first appeared in Cooney et al.'s (2000) study on play and work which used the term "blended learning". Although Cooney et al.'s (2000) study deviates from the typical use of blended learning, it is still pertinent to incorporate the concept. In the years following 2000, numerous scholars incorporated the term "blended learning" into their studies, yet there was no clear definition of what this term encompasses (Voci & Young, 2001; Bonk et al., 2002; Stewart, 2002).

One of the most cited definitions of blended learning is provided by Osguthorpe and Graham (2003). They define it as an approach that "combines face-to-face with distance delivery systems… but it's more than showing a page from a website on the classroom screen…those who use blended learning environments are trying to maximize the benefits of both face-to-face and online methods" (p.227). Additionally, in the context of higher education, Banados (2006) defines blended learning as "a combination of technology and classroom instruction in a flexible approach to learning that recognizes the benefits of delivering some training and assessment online but also uses other modes to make up a complete training program which can improve learning outcomes and/or save costs" (p.534). It is evident from these definitions that blended learning provides students with flexibility by integrating both online and physical interactions in the classroom.

Since its inception around 2000, blended learning has been a subject of discussion in higher education globally. For instance, in Bangladesh, Islam et al. (2021) found that blended learning is a promising mode that could be adopted in all Bangladesh Universities to maximise learning opportunities for students. Interestingly, these researchers developed a model for blended learning to facilitate students' overall cognitive development. Therefore, this discovery suggests the necessity to implement blended learning in HEIs. Similarly, in Sweden, there is evidence to support the importance of blending in their HEIs. Ossiannilsson (2017), on behalf of the International Council for Open and Distance Education (ICDE), contributed to discussions on blended learning by emphasising the significance and implications of this mode in HEIs. In Africa, Singh and Hassan (2017) have presented compelling evidence that the demand for quality

education in Africa has prompted many institutions to adopt innovative learning methods such as e-learning, massive open online courses (MOOCs), and mobile learning. Tshabalala et al. (2014) further emphasise that blended learning also emerged as one innovative learning method in HEIs in South Africa.

In the context of Lesotho, it is important to note that the country is a member of leading organisations including the United Nations and the Southern African Development Community (SADC) which advocate for quality education. SADC's Regional Indicative Strategic Development Plan (RISDP) 2020–2030 advocates for the development of 21st-century skills in education as well as relevant education that suits the interests of students. For instance, Objective 3 espouses "increased access to quality education and relevant education and skills development, including science and technology, for SADC citizens" (SADC, 2020, p.55). Lesotho responds to frameworks such as the RISDP 2020–2030 with its Education Sector Plan (ESP) 2016–2026 which is a guide to Lesotho's educational system. One of the aims of this sector plan is to provide inclusive and relevant education for all (MoET, 2016). In the same tandem, the Lesotho Higher Education Policy advocates for the adoption of blended learning in HEIS as it forms an integral part of teaching in Lesotho (CHE, 2013). It is this apprehension that has prompted the pursuit of this current study on the possibilities of blended learning in HEIs in Lesotho.

1.3 RATIONALE AND MOTIVATION FOR THE STUDY

Research on blended learning in the higher education context has highlighted a pressing need to incorporate this mode of learning into existing education structures. Undoubtedly, the proliferation of digital technologies and the increasing demand for flexible learning options favourable for 21st-century students have underscored the potential benefits of blended learning (Nkhi et al., 2023). Additionally, Modise (2022) argues that the effects of Covid-19 on HEIs, especially in developing countries in Africa, have accelerated the adoption of flexible learning modes such as e-learning and blended learning. The Lesotho ODL policy (2024) further acknowledges that the COVID-19 pandemic necessitated the shift towards online education, as the pandemic has made it urgent for institutions to transform their education structures. These factors collectively drove interest in

understanding how blended learning could be effectively implemented in the context of higher education in Lesotho to make education flexible and adaptable. Furthermore, the rationale for this study lies in the potential transformative impact that blended learning could have on higher education in Lesotho. Blended learning, as previously elucidated, combines traditional face-to-face instruction with online learning to provide a flexible and dynamic approach to education. This method can help address a range of challenges faced by higher education institutions in Lesotho, including limited access to educational resources, learner support services, the demand for personalised learning experiences, and the difficulties in maintaining educational continuity during times of crisis, among others.

1.4 THEORETICAL FRAMEWORK

The Community of Inquiry (CoI) Framework as well as the Unified Theory of Acceptance and Use of Technology (UTAUT) were employed in this study to explore the dynamics of blended learning in Lesotho's higher education institutions. This CoI framework, developed by Garrison, Anderson, and Archer in 2000, emphasises active learning and is rooted in the constructivist theories of Dewey (1938) and Piaget (1977). The authors introduced the CoI model as a way to assess and integrate strategies to improve teaching and learning in blended learning environments. This model posits that learning in a community occurs through the interaction of three essential presences: cognitive, teaching, and social. This section presents a brief overview of these presences (please refer to Chapter 2, Section 2.3.1 for more details and Figure 2.2 from a diagrammatic illustration of the interrelationships between the presences).

Presence is defined as “a state of alert, awareness, receptivity, and connectedness to the social, cognitive, emotional, and physical aspects of both the individual and the group in the context of their learning environments” (Rodgers & Raider-Roth, 2006, p.1).

Garrison et al. (2000) define cognitive presence as the degree to which students can create meaning through extended discussion and contemplation. This highlights the need for ongoing reflection and communication within the inquiry learning community to give students the greatest possible educational experiences. Additionally, cognitive presence

covers four stages: triggering events, exploration, integration, and problem-solving. In the context of this study, the analysis of cognitive presence is vital as it involved a meticulous examination of how students apply critical thinking skills, participate in online discussions, and construct knowledge (Vaughan, 2010).

Social presence is also critical in blended learning. It is defined as “the ability to create a learning environment and atmosphere that enables learners to communicate in a friendly and supportive environment and demonstrate true social and emotional expression capabilities” (Zhang et al., 2020, p.226). This indicates that for their presence to be authentic, members of the inquiry community need to project their qualities onto the community. In a geographically dispersed learning environment like Lesotho, nurturing social presence is crucial for fostering a sense of community and alleviating feelings of isolation. This aspect entailed examining how effectively students connect, how instructors establish a supportive online environment, and the overall community dynamics within the blended learning experience.

The third element of this model is teaching presence. In blended learning, teaching presence encompasses three functions: instructional design and organisation, facilitation of discourse, and direct instruction (Cleveland-Innes & Fung, 2010). During the design phase, the teacher's primary objective is to select, organise, and present content material, as well as design learning activities and assessments (Garrison et al., 2000). The second function, facilitation, is the responsibility that the participants might share in the community. Therefore, teaching presence plays a crucial role in supporting and enhancing social and cognitive presence to achieve educational goals. In my exploration, I focused on how teaching presence impacts the effectiveness of blended learning in Lesotho, which included a detailed examination of instructional design, feedback mechanisms, and teaching strategies utilised by instructors.

In addition to the Community of Inquiry (CoI) Framework, this study was also informed by the Unified Theory of Acceptance and Use of Technology (UTAUT). While CoI provided a strong lens for analysing the pedagogical and learner support dimensions of blended learning, UTAUT was incorporated to address the equally important issues of technology adoption and infrastructural readiness that emerged from the findings. Constructs such

as performance expectancy, effort expectancy, social influence, and facilitating conditions aligned closely with the barriers lecturers identified, including unreliable internet access, unstable learning management systems, limited digital literacy, and lack of institutional support.

The integration of UTAUT alongside CoI therefore ensured that the study not only examined the teaching, cognitive, and social dynamics of blended learning but also captured the structural and technological factors influencing its implementation in Lesotho's higher education institutions. The next section unpacks the key concepts used in this study.

1.5 KEY CONCEPTS

1.5.1 BASIC CONCEPTS

- ***Blended Learning***

Blended learning, as defined by Dziuban et al. (2018), involves the integration of face-to-face and online instruction. This mode of learning has been widely adopted across higher education, with these scholars referring to it as the "new traditional model" or the "new normal" in course delivery. Similarly, Garrison and Vaughan (2008) define blended learning as a "thoughtful fusion of face-to-face and online learning experiences." This pedagogical approach encompasses a variety of design approaches, including the combination of learners' work with online software, online monitoring, and face-to-face teacher-led classes (O'Connell, 2016). Despite the growing interest in blended learning, there is an ongoing debate about its precise definition, reflecting the complexity and diversity of its implementation in educational settings (Alammary et al., 2014). However, in this study, blended learning was applied to mean the practice of providing instruction and learning experiences through the fusion of both face-to-face and technology-mediated learning (online learning) (Commonwealth of Learning, 2021).

- ***Distance Learning***

The terms online learning, blended learning, and eLearning are often used interchangeably, so it is essential to clarify their distinctions. Distance learning, also referred to as distance education, is defined by Mokenela (2019) as the method of delivering education and instruction to students who are not physically present on campus. It involves utilising technology to overcome the geographical barrier between the instructor and the learners. According to the UNISA ODL Policy (2008), *distance education* (DE) is described as "a set of methods or processes for teaching a diverse range of students located at different places and physically separated from the learning institution, their tutors/teachers as well as other students" (p.1-2). This definition from UNISA was adopted in the study.

- ***E-Learning***

The term "e-learning" encompasses the utilisation of electronic media for both teaching and learning, and it has a broad scope**.** For example**,** Tallent-Runnels et al. (2006) describe e-learning as “any learning that is electronically mediated or facilitated by transactions software” (p.94), while Wentling et al. (2000) define eLearning as “acquisition and use of knowledge distributed and facilitated primarily by electronic means” (p.5). These definitions emphasise that e-learning does not necessarily rely on the Internet. In this study, the definition provided by Pavel et al. (2015) was adopted. It states that “e-learning is the use of information and communication technologies to support teaching and *learning in distance education"* (p.707).

- ***Online Education***

Online learning refers to the educational process facilitated using digital technologies and the Internet, allowing learners to access and engage in instructional content, resources, and interactions remotely (Barrot et al., 2021). This suggests that regardless of whether learning is synchronous or asynchronous, the primary distinction between eLearning and online learning is the latter's complete dependence on the Internet. As a result, since online learning involves using electronic or digital devices to access the Internet, it is included in the eLearning category (Mokenela, 2019). The Commonwealth

of Learning (2021) further stresses that in online learning, there is mandatory involvement of a digital network, which sets it apart from eLearning.

1.6 PROBLEM STATEMENT

Despite the increasing adoption of blended learning in higher education institutions in Lesotho and its inclusion in national higher education policy (CHE, 2013), there is limited empirical evidence on how this mode of delivery is implemented, experienced, and supported by lecturers and students. In particular, little is known about the nature of blended learning practices, their pedagogical implications, and the effectiveness of learner support mechanisms within Lesotho's higher education context.

Existing international and local studies indicate that blended learning has the potential to enhance student achievement, engagement, and attitudes towards learning when it is well designed and adequately supported (Bates, 2018; Mpungose, 2020; Nkhi et al., 2023). In Lesotho, previous research has shown that blended learning can promote learner-centredness, personalised instruction, and flexible access to learning opportunities (Mokenela, 2019; Mphats'oane et al., 2023; Makumane et al., 2023). These studies also highlight challenges related to infrastructure, digital skills, and institutional readiness. However, these studies are limited in several ways. For example, Mokenela (2019) focused primarily on developing a pedagogical framework for a single institution in Lesotho, while Mphats'oane et al. (2023) examined blended learning as an innovative strategy that could be used to enhance English reading abilities without adequately exploring learner support practices and factors influencing the success of blended learning. As a result, they are narrow in focus and do not offer a comprehensive understanding of how blended learning operates in practice across higher education institutions in Lesotho.

This knowledge gap has important implications for policy alignment, institutional decision-making, and student outcomes. Without clear evidence on the nature, implications, and support structures of blended learning, policymakers and institutional leaders lack a reliable basis for developing coherent policies, allocating resources effectively, and designing sustainable implementation strategies. Similarly, lecturers may struggle to

design pedagogically sound blended courses, while students may experience inconsistent learning support and uneven learning opportunities.

If this gap remains unaddressed, higher education institutions in Lesotho risk continued inefficiencies in blended learning implementation, misalignment between policy and practice, and underutilisation of technological investments. This may result in limited improvements in teaching quality, persistent inequalities in access and participation, and suboptimal student performance. Furthermore, the absence of context-specific evidence may hinder the country's efforts to modernise its higher education system and respond effectively to emerging educational demands.

Therefore, this study seeks to address these gaps by exploring the nature of blended learning, examining its implications for effective implementation, and identifying best practices for learner support in higher education institutions in Lesotho. By generating contextually grounded evidence, the study aims to inform policy development, strengthen institutional practices, and enhance teaching and learning outcomes.

1.7 MAIN RESEARCH QUESTION

How and under what conditions can blended learning be effectively implemented in higher education institutions in Lesotho?

1.8.1 SUB-QUESTIONS

1. What is the nature of blended learning in higher education institutions in Lesotho?
2. How do lecturers perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?
3. How do students perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?
4. Which best practices for learner support in blended learning are required within Lesotho's higher education institutions?

5. Which comprehensive guidelines can be developed to assist lecturers in facilitating the effective implementation of blended learning in higher education institutions in Lesotho?

1.8 AIMS AND OBJECTIVES

1.8.1 AIM

To explore how and under what conditions blended learning can be effectively implemented in higher education institutions in Lesotho.

1.8.2 OBJECTIVES

1. To investigate the nature of blended learning in higher education institutions in Lesotho.
2. To explore lecturers' perceptions of factors that affect the successful implementation of blended learning in higher education institutions in Lesotho.
3. To explore the students' perceptions of factors that affect the successful implementation of blended learning in higher education institutions in Lesotho.
4. To determine which best practices for learner support in blended learning are required within Lesotho's higher education institutions.
5. To develop comprehensive guidelines that will assist lecturers in facilitating the effective implementation of blended learning in higher education institutions in Lesotho.

1.9 RESEARCH METHODOLOGY

In line with Creswell (2018), a research methodology is a strategy that explains how the researcher intends to carry out the research. It is a logical and systematic plan of procedures to be taken to resolve the research problem. Details of a research approach, reliability, and validity are addressed as well as how data was collected and analysed (Flick, 2020). In this chapter, details of the underpinning research paradigm, research

approach and design, methods of data collection and analysis as well as rigour are thoroughly explained. A research methodology is important because it proves the legitimacy of the study and allows the reader to understand the approach and methods that are used to reach conclusions (Creswell, 2015). Table 1.1 presents a bird's-eye view of the methodology employed in this study.

Table 1.1: Summary of the Methodology

Research approach	**Data generation tools/ instruments**	**Population/Sample**
Qualitative	Semi-structured interviews	12 lecturers
	Document Analysis	4 National Level Documents and 1 at Institutional level
Quantitative	Community of Inquiry Survey Instrument	152 students

1.9.1 RESEARCH DESIGN

Leedy and Ormrod (2015) define a research design as the universal plan or procedure for proposed research that requires prior data collection and analysis. Akhtar and Islamia (2016) further assert that the research design outlines the steps for the data required, the methods to be used, the data analysis, and how they will be used to answer the set research questions. A clear research design enables the researcher to answer the research questions objectively and accurately.

The current study employed a mixed-method parallel convergent research design. It is a methodological approach in which both quantitative and qualitative data are collected simultaneously, analysed independently, and then merged during the interpretation phase (Munce et al., 2020; Deniz & Erdener, 2023). This design aims to draw on the strengths of both data types to develop a more comprehensive understanding of the research problem. This design is particularly valuable in educational research and other

social sciences, where phenomena are often multifaceted and cannot be fully understood through a single methodological lens. As a result, I employed this design to understand the possibilities of blended learning in HEIs in Lesotho.

Moreover, I employed this design because it allowed for richer interpretations as the integration of diverse data types can reveal patterns and insights not captured by either method alone (Creswell & Plano Clark, 2018). Notably, in this study the quantitative component provided measurable data on factors such as accessibility, student engagement, and overall components of the CoI framework, while the qualitative aspect offered insight into personal experiences, institutional challenges, and best practices. This methodological triangulation was essential in understanding not only *what* was happening but also *why* it was happening within the Lesotho context.

1.10 RESEARCH PARADIGM

The research paradigm, as defined by Kurunja and Kuyini (2017), is a method for conducting research. A research paradigm outlines how the researcher will navigate the topic. Understanding the underpinning research paradigm and how it frames the study makes it easier to grasp the impact of the researcher's perspective on the study results (Morgan, 2007). In educational research, the term "paradigm" refers to the researcher's viewpoint (Mackenzie & Knipe, 2006). A worldview is described as a school of thought that guides the interpretation or meaning of research findings (Guba, 1990). There are three main research paradigms in the field of knowledge: Positivism, Interpretivism, and Pragmatism paradigm (Guba, 1990). Hence, the current study was situated within the pragmatist paradigm.

1.10.1 Ontological Assumptions

Ontology is the study of the nature of reality that researchers are investigating (Wellington, 2000). It refers to the assumptions about the nature of reality that guide the research. Nyaphisi (2021) further stresses that ontological assumptions address the question "What is there that can be known?" The ontological perspective of the pragmatism paradigm, as outlined by Kurunja and Kuyini (2017), combines both realism

and constructivism in knowledge. Pragmatists believe that reality is not independent of people's perceptions but is shaped by their experiences and perspectives. This perspective allows for the utilisation of both qualitative and quantitative methods, recognising that both can offer valuable insights. This ontology suggests that in exploring the possibilities of blended learning in HEIs in Lesotho, different perspectives of lecturers and students involved in blended learning were essential to provide a comprehensive view of the nature, factors, and best practices for learner support, ultimately aiding in the development of guidelines for effective implementation of blended learning in HEIs.

1.10.2 Epistemological Assumptions

The epistemological perspective of pragmatism is known as transactionalism, which suggests that knowledge is created through the interaction between the researcher and the participants. In this case, the values, perspectives, as well as experiences of the researcher and participants influenced the research process. The researcher and respondents work together to create knowledge. As a result, the researcher in this study interacted with participants to construct knowledge.

1.10.3 Methodological Assumptions

One of the essential components of a research paradigm is its methodology. Ilcha (2019) defines research methodology as the process through which researchers conduct their investigations, starting from problem identification and concluding with final plans for data collection and analysis. In pragmatism, the methodological aspect is known as methodological pluralism. This is because pragmatism embraces the use of various research methods rather than being confined to a single approach. Pragmatists recognise that both qualitative and quantitative methods have their strengths and limitations, and combining them can lead to a more comprehensive understanding of the research topic (Flick, 2020). In this study, both qualitative and quantitative methods were employed to explore the possibilities of blended learning in HEIs in Lesotho. Specifically, qualitative methods such as interviews and document analysis were used to explore the nature and factors affecting the successful implementation of blended learning, as well as best

practices for supporting learners. Additionally, the CoI survey, which had been previously developed and validated, was utilised to collect quantitative data that complemented the qualitative findings.

1.10.4 Axiological Assumptions

Through pragmatism, the researcher identified philosophical approaches to decision-making, translating into the axiology of the paradigm (Kurinja & Kuyini, 2017). A balanced axiology conjectures that the study's outcomes will mirror the researcher's values. Khatri (2020) suggests that axiology involves defining, evaluating, and understanding concepts of right and wrong behaviour in research. According to Rakotsoane (2019), it considers the value the researcher must demonstrate towards various aspects of the research, including participants, data, and the audience to whom the research results will be presented. The current study benefited from the pragmatism paradigm by considering the ethics the researcher had to uphold while collecting data from teachers and learners.

1.11 RESEARCH APPROACH

Creswell (2018) defines a research approach as a plan or a procedure of research that articulates steps for collecting data, data analysis, and interpretation. The choice of the research approach depends on the type of data to be collected (Creswell, 2015). There are three approaches used in research: qualitative, quantitative, and mixed methods approach. In this study, a mixed-methods research approach was perceived as a suitable choice to explore the possibilities of blended learning in HEIs in Lesotho. This design was chosen because it emphasised multiple ways to address the research problem. The understanding of this approach is that narrative and non-textual information can add meaning to the numeric data, while numeric data can add precision to the narrative data (Rakotsoane, 2019).

Creswell (2018) describes mixed methods as an approach that combines the collection, analysis, and integration of both quantitative and qualitative data within one study to gain a deeper understanding of the research problem. This method is mostly preferred by pragmatists, who aim to “simply identify what works” to solve the problem. Furthermore,

pragmatists believe that in educational research, a mixed-methods approach should be used to provide relevant and satisfying information about what is likely to happen in a particular situation. Their stance on this approach is that it is utilised to obtain information that will help achieve the desired outcome. Therefore, considering the broader context of the study, the researcher found this approach most appropriate.

1.12 RESEARCH STRATEGY

There are various types of research designs; however, this study employed a mixed-methods multiple case study design. A case study is defined as an in-depth examination of a particular subject such as a person or group, place, event, organisation, or phenomenon (Flick, 2020). In a definition provided by Nieuwenhuis (2011), case study research is described as a "systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest" (p.75). Case study methods enable a researcher to closely examine data within real life or a specific context, particularly when a holistic, in-depth investigation is required.

According to Yin (2012), case studies have different types, including explanatory, exploratory, or descriptive, and can also be single holistic case studies or multiple-case studies. Stake (1995) identifies case studies as intrinsic, instrumental, or collective. Considering the merits of the current study, a multiple case study was the most suitable type to use because it allowed me to explore differences within and between cases (Yin, 2003; Yin, 2012). This facilitated replicating findings across cases and drawing comparisons easily (Baxter & Jack, 2008). Additionally, Leedy and Ormrod (2015) argue that it is crucial to carefully choose cases to either rule out similar results across cases or predict contrasting results based on a theory.

In exploring the possibilities of blended learning in HEIs in Lesotho, I employed the mixed-methods multiple case study design to make comparisons, build theory, and propose generalisations. This was achieved through the collection of extensive data on lecturers and students, which was the focus of the investigation. The collected data often includes observations, questionnaires, interviews, document records, and audio-visuals (Rakotsoane, 2019). Nevertheless, for the current study, interviews and document

analysis were employed to collect qualitative data, while a CoI survey instrument generated quantitative data.

1.13 RESEARCH METHODS

Different sources of evidence – including documents, interviews, and official records – are utilised in qualitative research to collect data (Cohen et al., 2012; Creswell, 2015). In this study, in-depth interviews, document analysis, and a CoI survey were employed to gather data. This section, therefore, elaborates on the participant selection process, research techniques, and the description of data analysis.

1.13.1 Selection of Participants

According to Cohen et al. (2007, p.100), “The quality of a piece of research stands or falls not only by the appropriateness of methodology and instrumentation but also by the suitability of the sampling strategy that has been adopted”. In essence, Kaur (2017) expounds a sample as a representation of the entire population, with sampling being the technique used to select it. Cohen et al. (2007) stress the importance of sample size determination in sampling, which involves choosing the number of study points to be included (Cohen et al., 2007; Kaur, 2017). For this study, I employed purposeful site sampling to select three higher education institutions in Lesotho, including two public and one private university. These institutions were chosen because they offer undergraduate programmes across different faculties and have implemented blended learning initiatives. Again, the selected sites provided variation in institutional type and academic programmes and this enabled comparative insights into blended learning practices across contexts. Another compelling reason was that most studies in Lesotho focused on one institution (Mokenela, 2019) and choosing three institutions was deemed beneficial for transferability although the main purpose was not generalise the findings.

Purposive sampling, supported by convenience sampling, was used to select 12 lecturers for the qualitative stage based on their experience in delivering blended learning programmes. The participants from these selected HEIs both lecturers and students were assumed to be information-rich as their direct involvement in blended learning meant they

could provide detailed information into its implementation, challenges, and support mechanisms. By purposive sampling, Creswell and Creswell (2018) expound that it is the deliberate choice of participants in the study due to the attributes they possess. Purposive sampling was deemed suitable for the qualitative phase since it seeks to identify and select points of study that are well-informed about the phenomenon of interest (Cohen et al., 2007; Kaur, 2017).

Convenience sampling – which this study also adopted – is a type of non-probability sampling method, which means participants are selected based on their availability and accessibility (Kaur, 2017). Convenience sampling was suitable in this study since the selection of lecturers was based on the availability and accessibility of their institutions. In accordance with Flick (2020), this type of sampling is often used when the researcher does not have access to a complete list of potential participants.

In the quantitative phase of the study, probability sampling was considered the most suitable approach to ensure that the results would accurately reflect the larger population. According to Creswell and Creswell (2018), this method allows every individual in the population an equal chance of being selected. Specifically, the study employed simple random sampling, where participants were randomly chosen from the population, as supported by Flick (2020). A total of 152 students engaged in blended learning from three universities were selected to provide the quantitative data. This sample size was considered appropriate given that blended learning remains a relatively new and limited mode of instruction within Lesotho's higher education landscape. Notably, only three accredited institutions in the country currently offer blended learning programmes (CHE, 2013).

In delimiting the scope of the study, participants from basic and secondary education institutions were excluded, as their instructional contexts and technological environments differ significantly from those of higher education. Furthermore, the study prioritised the perspectives of lecturers and students over those of policy makers and administrators to capture firsthand experiences of blended learning practices, challenges, and perceptions. These delimitations were intentionally applied to maintain the focus and manageability of the study, while ensuring the generation of rich and contextually relevant data.

1.13.2 Data Generation Procedures

- ***Semi–Structured Interviews***

Semi-structured interviews were used to collect data for this study. As Modise (2022) points out, semi-structured interviews centre on the notion that the researcher asks a few questions to the participants while the rest of the questions come unplanned. It is clear from Modise's (2022) remarks that semi-structured interviews use a combination of structured and unstructured questions since even though most of them are unplanned, some questions may still be predetermined. A semi-structured interview has several attractive features, thus rendering it a compatible method for this study. To start with, Leedy and Ormrod (2005) maintain that semi-structured interviews develop the relationship between a researcher and participants so that their experiences can be explored and fully harnessed. Furthermore, semi-structured interviews provide spontaneous exploration of topics relevant to the main topic.

The researcher interviewed 12 lecturers to obtain a deeper understanding of the factors affecting the successful implementation of blended learning as well as the best practices for learner support. This was done based on the advantages of semi-structured interviews as highlighted (Roulston & Choi, 2018). The rationale for choosing lecturers for the interview sessions was premised on the fact that lecturers possess detailed knowledge and experience regarding instructional design and pedagogical practices used in higher education, which are some of the elements of the theory used in this study. Again, lecturers' insights revealed the effectiveness of various techniques used to promote engagement and a sense of community in blended learning courses.

- ***Document Analysis***

Document analysis is a qualitative research method that involves systematically reviewing and interpreting existing documents to gain understanding and generate empirical knowledge about a specific topic or phenomenon (Morgan, 2022; Kurata, 2024). These documents may include policy papers, institutional reports, curriculum guides, strategic plans, official publications, minutes of meetings, or academic articles. The researcher

identifies relevant materials, extracts data, and analyses the content to uncover patterns, themes, or insights related to the research questions.

For the present study, both national and institutional documents were analysed to understand the nature of blended learning. Since this type of learning is still evolving in Lesotho, document analysis helped to understand how the concept is officially positioned, supported, or limited within the system. It also enabled me to critically assess whether existing institutional and policy environments are conducive to scaling up blended learning, making it an ideal method for exploring structural possibilities and constraints without the need to rely solely on primary data collection.

- ***Community of Inquiry Survey Instrument***

The Community of Inquiry (CoI) survey is employed in various educational settings to evaluate student experiences regarding teaching, social, and cognitive presence (Sielmann et al., 2022). This survey instrument, comprising 34 items rated on a 5-point Likert scale from strongly disagree to strongly agree, assesses cognitive presence, social presence, and teaching presence (Arbaugh et al., 2008; Aebersold et al., 2015) and was utilised for quantitative data collection. The CoI framework has been applied in research examining the efficacy of blended learning on a global scale (Parulla et al., 2022). Furthermore, it has been validated in diverse cultural contexts such as Brazil and South Africa, highlighting its relevance across different educational settings (Akyol & Garrison, 2019; Mutezo & Maré, 2022).

In Lesotho, the higher education policy mandates the integration of blended learning to enhance programme delivery in HEIs (Nkhi et al., 2023). Assisted by the CoI survey, I assessed the development of a community of inquiry over time. This involved understanding how teaching, social, and cognitive presences evolve within the blended learning environment and their influence on student learning experiences. Additionally, the CoI survey provided profound insights into the effectiveness of blended learning in increasing cooperative learning and enhancing student engagement in online-based environments (Norz et al., 2023). The survey further helped in identifying factors that contributed to the successful implementation and outcomes of blended learning initiatives in Lesotho (Moreira et al., 2013).

1.14 DATA ANALYSIS

According to Creswell (2008), qualitative data analysis is a process that involves categorising, describing, and synthesising data. It encompasses various steps, including coding, organisation, theme development, and data interpretation to explain the studied phenomenon. When choosing the data analysis method, the researcher must consider the research questions and the underlying theory. In a mixed-methods multiple case study design, the data analysis methods vary depending on the specific research question (Chanda, 2022**).** Figure 1.1 graphically illustrates the processes taken in analysing the data generated in this study.

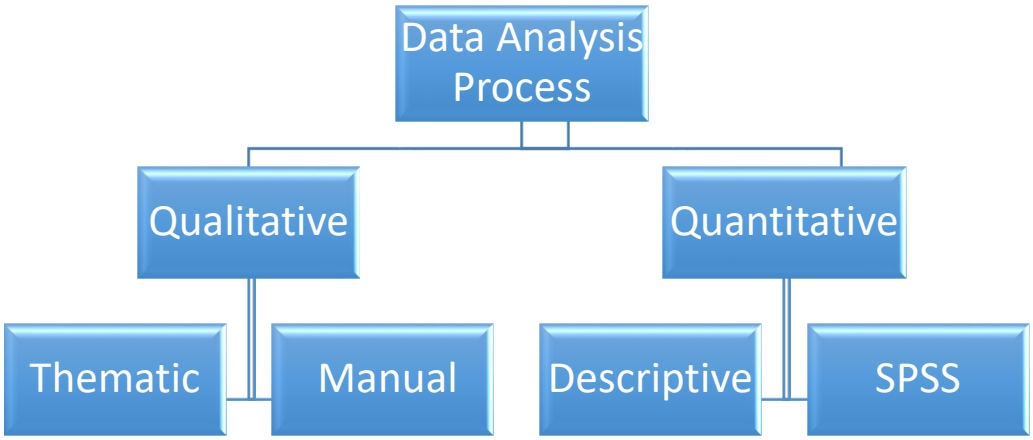


Figure 1.1: Data Analysis Process

For the qualitative data gathered through semi–structured interviews and documents, thematic analysis was employed. Thematic analysis, as described by Maguire and Delahunt (2017), involves identifying patterns in the data, with emerging themes serving as the categories for analysis. The process entailed a meticulous, focused rereading and analysis of the information (Chanda, 2022). Boru and Lelissa (2018) further elucidate that in developing themes, the reviewer closely examines the selected data, conducts coding, and establishes categories based on the data's characteristics.

Maguire and Delahunt (2017) delineate the six steps of thematic analysis: preparation and organisation of data, reviewing and exploring data while noting thoughts and ideas, creating initial codes using highlighters and notes, reviewing, and merging codes into

themes, and, finally, writing up. This process aided the researcher in recognising recurring themes and presenting them cohesively for interpretation (Braun & Clarke, 2019; Chanda, 2022). The qualitative data was analysed manually as I encountered a problem with the institution since it had not paid for the Atlas.ti licence at the time I was conducting the analysis.

For the quantitative phase, first, the data from the CoI survey was entered into the Statistical Package for Social Sciences (SPSS) Version 28. Secondly, descriptive statistics such as the mean, and standard deviation were calculated to summarise the data. Lastly, the results were interpreted and discussed in relation to the research questions and the existing literature, then triangulated with the results from the qualitative phase.

Cross-case synthesis, as defined by Creswell and Creswell (2018), involves comparing and synthesising findings from multiple cases. In this study, the cross-case synthesis was employed to merge the outcomes of the qualitative phase with those of the quantitative phase. Specifically, the results from the documents analysis and interviews were juxtaposed with those from the CoI survey instrument. This approach facilitated a comprehensive understanding of the possibilities of blended learning in HEIs in Lesotho.

1.15 STUDY RIGOUR

Trustworthiness or rigour of a study refers to the reliability of the research and its implications on the level of assurance in data interpretation and methodologies employed (Rakotsoane, 2019). To be deemed valid and reliable, necessary protocols and procedures must be followed, as emphasised by Amankaa (2016). During the qualitative phase, I maintained vigilance in ensuring credibility, transferability, dependability, and confirmability.

Credibility is a type of trustworthiness that seeks to establish the congruence of the research findings with reality. To achieve credibility, the research method undertaken in this study has been clearly explained. Engaging various processes of triangulation is one of the strategies used to achieve credibility of a study (Stahl & King, 2020). Attaining credibility in this study also involved providing the research participants with a pre-

publication copy of research write-ups to seek their feedback regarding the accuracy of data. This is referred to as member checking (Noble, 2019). To further enhance credibility, this study collected data through document analysis and semi-structured interviews with both students and teachers engaged in blended learning mode. The results from the two tools were triangulated.

Similarly, transferability was ensured in this study. The term transferability signifies that the results of the study can also apply in other contexts (Nyathi, 2018). Providing the number and type of participants establishes a baseline for the boundaries of a study, thus enhancing its transferability. The methods of data collection, the period during which the data was collected, and the length of data generation sessions also contributed to ensuring transferability (Stahl & King, 2020).

Another factor to consider is dependability, which refers to the consistency of the findings, indicating that they are reliable and replicable (Nyathi, 2018). To ensure dependability, a comprehensive description of the research design and its execution in the study is essential. In this study, the use of multiple case study designs was proposed to gather data from three selected universities in Lesotho. Another approach available to researchers is double coding, where a set of data is coded once and then coded again later for comparison of outcomes.

For confirmability, I took measures to ensure that the research findings were a result of the participants' experiences and ideas (Stahl & King, 2020). Confirmability describes the degree of neutrality, reflecting the respondents' opinions and experiences rather than the researchers' biases, motivations, or interests. To ensure confirmability, I documented all procedures and decisions taken during the study. Peer debriefing was also utilised to get opinions from other researchers. Transparency regarding potential biases and limitations was maintained.

To ensure the validity of the quantitative phase, a clear causal relationship between the variables of the study ensured internal validity using convergent parallel design (DeCuir-Gunby, 2008). Qualitative data were collected through interviews and document analysis. The findings were compared with those from the CoI instrument survey and they converged to provide similar results with high internal validity. In mixed methods research,

ensuring reliability requires consistency and reproducibility (Krawczyk et al., 2019). For purposes of reliability, internal consistency of the adapted instrument was assessed using Cronbach's alpha after data collection.

1.16 ETHICAL CONSIDERATIONS

When conducting this study, ethical guidelines were followed to protect the participants from harm and ensure voluntary participation. Informed consent from the participants was also obtained. They were provided with detailed information about the study, allowing them to decide whether they were willing to participate. Participant names were kept confidential and pseudonyms were used. The collected data was kept confidential and used solely for the research at hand. Prior to commencing the research, approval was obtained from the appropriate committee at the researcher's institution (Leedy & Ormrod, 2015). Permission was also obtained from the concerned higher education institutions and ethical clearance was sought from the UNISA College of Education.

Lastly, all qualitative and quantitative data, including transcripts, survey responses, and any other documents, were securely stored in password-protected electronic files accessible only to the researcher. The physical documents were stored in locked cabinets in a secure location. Additionally, all data were stored for the duration required by institutional policies and will be securely destroyed to prevent unauthorised access or disclosure. These measures were meant to uphold the privacy rights of participants and ensure responsible handling of sensitive research data.

1.17 LIMITATIONS OF THE STUDY

It is a commonly upheld view in research that a study cannot be without certain limitations. Firstly, there were challenges associated with recruiting participants, including obtaining voluntary participation and ensuring a representative sample. This was minimised through employing multiple recruitment strategies such as sending personalised email and making follow-up to increase participation. Some lecturers or students chose not to participate, potentially leading to selection bias if those who opted out may have had different perspectives or experiences related to blended learning. Additionally,

participants' availability and willingness to engage in interviews or surveys were limited due to their academic commitments or other obligations, which impacted the depth and breadth of data collected. To rectify this, I offered flexible scheduling for both interviews and surveys. However, it should be noted that the study is exploratory and context-specific and that its findings are intended to contribute to a growing but still limited literature on blended learning within small, resource-constrained HEIs such as Lesothos's.

1.18 CHAPTER DIVISIONS

Chapter 1 introduced the topic and provided a background to the research. The chapter also highlighted the theoretical frameworks utilised, defined the terminology, and explained the key concepts of the study. The problem statement was discussed alongside the aims and objectives of the study. The research methodology and the rationale behind it were thoroughly elaborated. Lastly, the chapter addressed the measures undertaken to ensure trustworthiness and concluded with ethical considerations.

Chapter 2 discusses the theoretical framework and provides an in-depth elaboration on the Community of Inquiry Framework and its justification for the current study. The chapter provides a comprehensive analysis of the three interdependent elements: cognitive presence, social presence, and teaching presence. Each element was examined in detail, highlighting its significance and role in the context of blended learning in higher education. The interrelationships among these elements were also explored, demonstrating how they collectively contribute to a holistic learning experience.

In Chapter 3, the relevant literature on existing research is reviewed, presenting discussions and debates on blended learning in higher education. The chapter examines various studies that explored the implementation, challenges, and benefits of blended learning. It highlights diverse perspectives on the effectiveness of blended learning models, analysing factors such as technological infrastructure, student engagement, and instructional design among others. The review also identifies gaps in the current research, emphasising the need for further studies in the context of higher education institutions in Lesotho.

Chapter 4 discusses the research design, approaches, and methods in detail. The research design that guided the study and the underlying philosophical paradigm are also presented. The research approach, including the specific research type, is thoroughly explained. Procedures, tools, and techniques for data gathering and analysis are elaborated upon to provide a clear understanding of the methodological framework. Additionally, the chapter highlights measures to ensure the study's rigour, and addresses ethical considerations comprehensively.

Chapter 5 presents the data, its analysis and interpretation. The different themes that emerged from the analysis are also presented.

Chapter 6 discusses the findings of the study from the interviews, documents analysis and survey. This chapter concludes with a reflection on the integrated findings and the contribution of each data set in addressing the research question.

Chapter 7 focuses on the summary, conclusions, and recommendations. Also, based on the findings, the study proposes guidelines for effective implementation of blended learning in higher education institutions in Lesotho and, lastly, the chapter concludes with suggestions for future research.

1.19 CONCLUSION

This chapter outlined the foundational background and key issues central to this research, stressing the significance of the study. It presented the methodological principles that directed the research, detailed the ethical considerations, and clarified the fundamental concepts. Additionally, the chapter described the sampling and selection process of participants, as well as the methods used to collect and interpret relevant data to address the research questions. The 21st century has seen a substantial transformation in higher education, marked by the integration of technology into the classroom. Lately, there has been an increasing focus on adopting flexible teaching and learning methods in higher education to meet the evolving needs of students, and blended learning has evolved as one such method.

The COVID-19 pandemic further accelerated the adoption of blended learning in higher education institutions. Therefore, it is important to explore its possibilities in higher education institutions in Lesotho to provide flexible learning options for students and address the existing educational inequalities as highlighted in the chapter. The next chapter discusses the theoretical framework adopted in the study and its relevance and applicability in the context of blended learning.

CHAPTER 2

THEORETICAL FRAMEWORK

"Every theory is a self-fulfilling prophecy that orders experience into the framework it provides" Ruth Habbard

2.1 INTRODUCTION

Chapter 1 provided an introduction and brief overview of this study. This chapter presents the selected theoretical frameworks for this study and gives the context around other viable theories in distance learning, and thus blended learning.

The Community of Inquiry Framework (CoI), developed by Garrison, Anderson, and Archer (2000), was adopted in this study to better understand the dynamics of blended learning in HEIs in Lesotho. Since the inception of this theory in 2000, research evidence indicates that many researchers globally have applied it in their empirical studies on distance learning, online learning, as well as blended learning (Kineshanko, n.d.). The results of this study therefore offer strong evidence that the model is still widely used in the online, blended, and distance education communities, perhaps even due to the remarkable advancements in technology and the abundance of distance education research.

In research such as this, a theoretical framework is of paramount significance. Recent literature provided by Creswell and Creswell (2023) suggests that theoretical frameworks are used in various studies not only to predict what the researcher expects to find by the end of the study but also to provide a focal lens to give shape to the principal issue under discussion or the question being asked. Additionally, existing literature recognises that the theoretical framework is one of the most important aspects of research and therefore has to be integrated in a way that aligns with the broader context of the study as it serves as the foundation upon which knowledge is constructed (Grant & Osanloo, 2014). In other words, the theoretical framework is considered as the blueprint for a thesis inquiry. It supports the study and provides the structure to define the philosophical, epistemological, methodological, and analytical approach to the thesis.

The next sections present a brief history of CoI, along with definitions and underlying assumptions. The basic principles of CoI are outlined as well.

2.2 Historical Overview of the Community of Inquiry (CoI)

It is essential to review John Dewey's philosophical ideas on practical inquiry and Lipman's (1991) interpretation of the classroom community of inquiry as they form the basis of the CoI framework and are integral to this study. Furthermore, it is crucial to understand how these concepts have shaped Garrison, Anderson, and Archer's theoretical framework for the Community of Inquiry.

2.2.1 John Dewey's Philosophy of Practical Inquiry

A synopsis of John Dewey's ideas is necessary since the philosophical ideas that resulted from the practical inquiry had a significant influence on the Community of Inquiry Framework, which served as the study's theoretical lens. The fundamental elements of John Dewey's educational philosophy and practice were inquiry and community. Dewey (1959) held that a community was essential to an individual's growth and that education should combine the interests of the individual with those of society.

Persistent with his philosophy, Dewey frequently used the terms "community" and "inquiry". Therefore, it is fair to assert that Dewey viewed schools as communities of inquiry. To be precise, he regarded schools as miniature communities where students learn through social interaction. According to Dewey (1958), a community is a social setting in which education takes place. He believed that individuals engage with others in their communities to shape their identities, values, and knowledge. As cited by Willower (1994), Dewey argued that a democratic community is one where everyone actively participates in decision-making processes. He stressed the value of communication, collaboration, and mutual respect. It is worthy to note that individuals are encouraged to express their viewpoints and engage in discussions within such a community, fostering a culture of shared learning and growth.

Consistent with Swan et al. (2009) and Modise (2022), Dewey also believed that inquiry was essentially a social activity. Dewey defined inquiry as an active, dynamic process of

seeking knowledge and understanding. It involves posing questions, investigating problems, and exploring solutions through experimentation and reflection (Dewey, 1958). Equally important, he interpreted inquiry as grounded in reflective thinking. This entails evaluating events critically, challenging presumptions, and considering multiple viewpoints. He argued that reflective thinking enables people to gain a greater awareness of their surroundings and make well-informed decisions.

Additionally, Dewey believed that inquiry should be multidisciplinary rather than limited to specific specialties. An interdisciplinary approach to inquiry facilitates a more comprehensive knowledge and more effective problem-solving since real-world situations often require input from various domains. Dewey (1958) asserted that inquiry is inherently social and collaborative. Engaging with others in the inquiry process enriches understanding and promotes the exchange of ideas. Collaborative inquiry helps individuals to consider different perspectives and enhances the quality of the learning experience. In addition, Dewey viewed inquiry as a method for solving real-life problems. The phases of inquiry are outlined below.

- The process starts with the identification of a problematic situation *(triggering event)*. In this phase, the problem that needs inquiry by the students is first identified. It can be in the form of a question, problem, or situation that propels the learners to seek further understanding through research. The key is to introduce a concept or situation that piques learners' curiosity and challenges their existing assumptions (Junus et al., 2019).
- The second phase – *exploration* – seeks to explore the problem identified in detail. The participants investigate the issue by compiling data, generating concepts, and debating potential solutions. This stage is defined by an open-ended investigation of different viewpoints and a quest for pertinent facts (Garrison et al., 1999).
- The third phase is *integration*, during which learners begin to synthesise the information gathered during the exploration phase. They critically analyse and connect different ideas, forming coherent insights and deeper understanding. This phase involves constructing meaning from the exploration data.

- Lastly, the resolution phase involves applying the newly constructed knowledge to solve the problem or address the initial question. Learners test their solutions, implement them in practical contexts, and reflect on the outcomes. This phase aims to resolve the initial triggering event (Garrison et al., 1999). This iterative cycle of problem-solving is central to Dewey's concept of inquiry (Garrison et al., 2001). Figure 2.1 gives a summary of the four phases of practical inquiry.

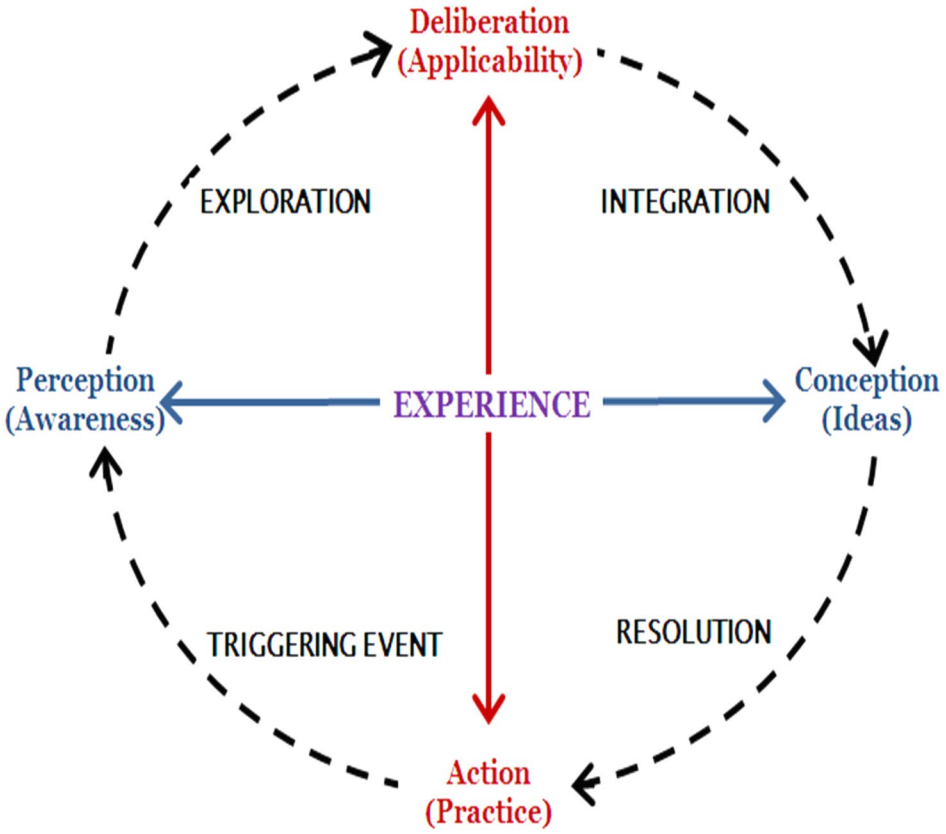


Figure 2.1: Practical Inquiry Model (Garrison, Anderson, & Archer, 2001)

Community of Inquiry (CoI) – proposed by Garrison et al. (2000) – is deeply influenced by John Dewey's ideas on community and inquiry. Dewey's philosophy laid the groundwork for the CoI framework, which seeks to create a collaborative learning environment that fosters critical thinking and reflective inquiry. For instance, Dewey believed in social constructivism and, likewise, the CoI framework is built on the idea of social constructivism. The social presence in the CoI framework posits that learning occurs within a community of learners through social interaction, where participants

engage in dialogue, share perspectives, and build knowledge collaboratively. Additionally, Dewey underscored the importance of reflective thinking in the process of inquiry, which involves critically questioning the existing status quo.

Similarly, in the CoI framework, the idea of reflective thinking is a particularly significant component found in the cognitive presence. Lastly, the teaching presence in the CoI framework aligns with Dewey's idea of the role of educators in guiding the inquiry process. It is argued that educators help to structure the learning environment, facilitate interactions, and support learners in their reflective inquiry.

2.2.2 Matthew Lipman's Interpretation of the Community of Inquiry

Garrison et al. (2000) further grounded the CoI framework on the ideas of Matthew Lipman. This suggests that Lipman's Philosophy for Children (P4C) has significantly influenced the CoI framework by integrating components of collaborative dialogue, critical thinking, and reflective inquiry, all of which are based on Dewey's practical inquiry approach. When studying the educational dynamics within classrooms, Lipman (1993, 2003) portrayed a community of inquiry as a space where

> *students listen to one another with respect, build on one another's ideas, challenge one another to supply reasons for otherwise unsupported opinions, assist each other in drawing inferences from what has been said, and seek to identify one another's assumptions* (p.20*).*

What is deduced from this is that in the classroom, students listen to one another with respect, valuing each other's contributions and opinions even when there are disagreements. In support of this, Kizel (2019) maintains that Lipman envisioned classes being transformed into communities of inquiry where members listen respectfully to each other, construct ideas together, challenge one another, and discover fundamental values and tenets. They build on one another's ideas, creating a collaborative and enriched learning experience. Instead of accepting opinions at face value, they challenge their peers to provide reasons and evidence for their statements, fostering a culture of critical thinking and inquiry. This dynamic encourages students to assist each other in making

logical connections and drawing inferences from the discussion, guiding one another towards deeper understanding(Striano, 2011).

Furthermore, Striano (2021) notes that students in a community of inquiry seek to identify the assumptions underlying their peers' statements and beliefs, promoting reflective and critical discussions. This approach not only enhances individual understanding but also cultivates a supportive and intellectually stimulating community. Through engagement in these practices, students develop important skills such as reasoning, critical thinking, and effective communication (Garrison et al., 1999). According to Lipman's paradigm, asking questions, evaluating, judging and, most importantly, logical reasoning are all integral parts of critical thinking (Wang, 2016).

Lipman is also interested in creative thinking. He argues that critical and creative thinking are interdependent, stating that “there is no critical thinking without a modicum of creative judgment” and “there is no creative thinking without a modicum of critical judgment” (Lipman, 2003, p.21). This implies that both critical and creative thinking aim to reach a judgment. Critical thinking focuses on discovering the truth and adheres to specific criteria, making it self-correcting and context-aware. On the other hand, creative thinking seeks significance, adjusts to diverse criteria, surpasses its constraints, and is influenced by the context in which it arises (Lipman, 1991; Wang, 2016).

In addition, Lipman (1991) in his book "Thinking in Education" emphasised that philosophical dialogue aimed at eliciting critical thinking in children transcends mere conversation. He posits that the primary objective of dialogue in inquiry is to “progress towards truth”. Therefore, such dialogue is guided by the pursuit of truth rather than the dominance of the teacher or student. This pursuit elevates the conversation above typical classroom discussions, structured by logical principles that demand participants to employ reasoning to engage effectively.

Fundamentally, Lipman’s interpretation has influenced CoI's framework in various ways. For instance, Lipman's emphasis on respectful and collaborative dialogue is reflected in the CoI framework's focus on social presence. This element highlights the importance of participants feeling connected and being able to communicate purposefully within a trusting environment. The interactions among learners are crucial for the construction of

knowledge, mirroring Lipman's idea of building on each other's ideas. Again, the CoI framework's cognitive presence involves constructing and confirming meaning through sustained reflection and discourse. This directly aligns with Lipman's focus on critical thinking and reflective inquiry, where students are encouraged to challenge unsupported opinions and assist each other in understanding and drawing inferences (Lipman, 1991).

While Lipman emphasised the role of the facilitator in guiding the inquiry process, the CoI framework expands this to include the overall orchestration of the learning experience. Teaching presence involves the design, facilitation, and direction of cognitive and social processes to achieve meaningful learning outcomes, reflecting Lipman's idea of a guided, collaborative inquiry.

In conclusion, Lipman's interpretation of the community of inquiry has been instrumental in shaping the development of the Community of Inquiry (CoI) Framework. By emphasising the importance of fostering reflective thinking, critical discourse, and collaborative engagement within educational settings, Lipman laid the foundation for the CoI model. The CoI framework, rooted in social constructivism and John Dewey's pragmatic philosophy, extends Lipman's concepts to promote purposeful critical discourse and reflection among individuals to construct personal meaning and confirm mutual understanding. Lipman's Philosophy for Children (P4C) programme, which aims to cultivate critical and creative thinking through a community of inquiry pedagogy, aligns with the principles of the CoI framework.

2.3 The Community of Inquiry Framework by Garrison, Anderson, and Archer

It is important to note that since the publication of the seminal paper on “Critical inquiry in a text-based environment: Computer conferencing in higher education” by Garrison et al. (2000), several researchers, academics, and students have embraced the CoI framework along with its three interdependent elements to inform distance, blended, and online learning practices. According to Anderson et al. (2001), this framework did not originate from traditional distance education that presumed students work remotely and independently from other peers but rather from the unique context of computer conferencing in higher education. In their analysis, computer conferencing was

asynchronous and text-based. In the context of Computer-Mediated Communication (CMC), as argued in the seminal paper, asynchronous interactions allowed participants to engage with the material, contribute to discussions, and complete tasks on their schedules rather than being required to be present simultaneously.

As Akyol and Garrison (2008) and Cleveland-Innes (2018) asserted, the CoI framework was introduced to enhance higher education by annexing three interdependent elements: social, cognitive and teaching presence. Similarly, the contention proposed by Makumane et al. (2023) is that the CoI framework was designed to facilitate deep and meaningful learning. This indicates that the primary purpose of the CoI framework was to offer a conceptual model for comprehending and evaluating the educational experience in online and blended learning environments. Moreover, the framework has been modified and applied in various settings, including social media-based learning environments for pre-service teachers, demonstrating its adaptability and significance across diverse educational contexts (Ullah, 2024).

Furthermore, evidence from several empirical studies has established that the CoI framework was developed to promote a collaborative-constructivist blended and online learning environment that fosters critical thinking (Junus et al., 2019; Makumane et al., 2023; Modise, 2022; Swan et al., 2009). This suggests that the CoI framework fosters higher-order thinking skills, encouraging students to analyse, synthesise, and evaluate information rather than merely memorise facts. This is crucial in higher education where critical thinking is highly valued and promoted.

Overall, the CoI framework continues to play a pivotal role in shaping engaging and effective online learning environments by promoting critical discourse, collaborative learning, and the construction of shared understanding among participants. Its emphasis on cognitive, social, and teaching presences discussed below has significantly contributed to enhancing student engagement, learning experiences, and overall educational outcomes in the digital age.

2.3.1 Elements of the Community of Inquiry

In accordance with Garrison et al. (2000), the three elements of CoI are reliant on one another and contribute to creating a deep and meaningful learning experience. Akyol and Garrison (2008, p 4) argue that CoI is "formed by the intersection of three main elements: social presence, cognitive presence, and teaching presence." Implicit in this citation is that the CoI framework is a tripartite system that is birthed by the confluence of teaching, social, and cognitive presences with the goal of delivering profound educational experiences to students in online, distance, or blended learning settings. The terms in the overlapping areas delineate potential processes within the framework. These three essential elements are illustrated in Figure 2.2 below and further elucidated.

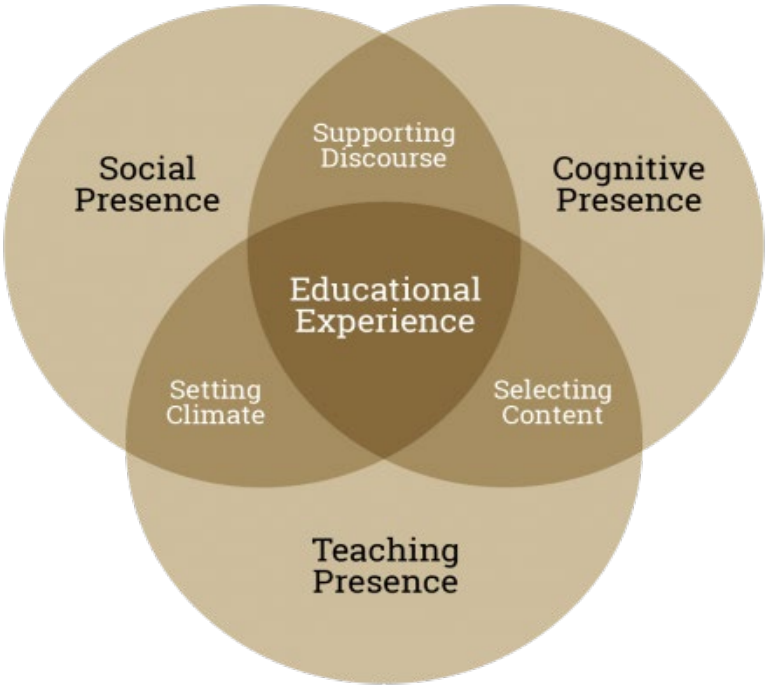


Figure 2.2: The CoI Model by Garrison, Anderson and Archer (2000)

2.3.1.1 Social Presence

According to Dewey (1958), learning is a result of experiences that are socially situated. Along similar lines, Lipman (1991) argued that "the reflective model is thoroughly social and communal" (p.19). Consequently, social presence plays a vital role in the growth of

communities and collaboration within online courses, making it an essential component of the CoI framework. Akyol and Garrison, (2019), drawing on Garrison et al. (2000) asserted that social presence is crucial as “an important antecedent to collaboration and critical discourse because it facilitates achieving cognitive objectives by instigating, sustaining, and supporting critical thinking in a community of learners” (p.67).

A closer look at the available literature shows that social presence involves participants projecting themselves socially and emotionally showcasing their full personality through the communication medium being utilised (Garrison et al., 1999). Social presence is vital for establishing a sense of authenticity and interpersonal connection among participants, thereby creating a supportive and engaging learning environment (Yusuf et al., 2023). Through fostering a sense of authenticity and interpersonal connection, social presence in the CoI framework helps mitigate the potential feelings of isolation that can occur in online or blended learning environments (Makumane et al., 2023). When students perceive their peers and instructors as real people with genuine emotions and personalities, I argue that they are more likely to engage meaningfully in discussions, collaborate on projects, and offer mutual support. Furthermore, this sense of community and belonging not only enhances student motivation and satisfaction but also encourages more open and honest communication, which is essential for deep learning and critical thinking.

Similarly, social presence plays a crucial role in nurturing trust and rapport among participants, which establishes a secure environment for the exchange of ideas and the questioning of assumptions. Junus et al. (2021) elaborates on this by highlighting that social presence enables students to engage with their peers, leading to collaboration, the development of strong relationships, and the cultivation of a shared understanding among participants.

Furthermore, the concept of social presence extends beyond mere participation in online discussions. Stenbom et al. (2016) underscored the significance of emotions in the context of social presence within the CoI framework. They contend that emotions play a crucial role in shaping online learning relationships and interactions, contributing to the overall sense of community and engagement among participants. It is therefore vital to

understand and address emotional aspects within social presence to enhance the quality of blended learning experiences and foster deeper connections among learners.

Further evidence supporting the crucial role of social presence within blended learning lies in the findings of Annand (2011), who expounded that social presence within the CoI framework highlights the projection of learners' characteristics through emotional expression and open communication to establish group cohesion. This feature emphasises how crucial it is to establish a welcoming and inclusive online learning environment where students feel included and connected. This is grounded on the assumption that teachers can improve participants' overall learning experiences by fostering meaningful connections, collaboration, and a feeling of community through the promotion of social presence (Garrison et al., 1991).

Results from previous studies illustrate a strong and consistent correlation between social presence and optimal learning experiences for students in blended and distance learning settings. Supporting this notion, Richardson and Swan (2019) confirmed that social presence not only influences learning outcomes but also affects student and instructor satisfaction in online courses. This highlights the importance of cultivating social presence to improve overall satisfaction and engagement in online learning environments. Additionally, Annand (2011) offered insights into the nature of social presence in text-based online learning environments, stressing the significance of establishing and maintaining social presence for effective online interactions. The study advocated for a relational perspective on social presence, emphasising human agency in mediated social processes and underscoring the critical role of social presence in online learning environments.

Further extensive evidence provided by Kim Pham et al. (2023) sheds light on the association between social presence and the degree of participation, interaction, and performance among collaborative group members. The results of their study confirm that social presence plays a crucial role in the online and blended learning environment, highlighting the significance of promoting social presence to enhance collaborative learning experiences and improve overall engagement among learners. Additionally, Pham et al. (2023) found that teaching presence and social presence significantly

predicted cognitive presence within the CoI framework, demonstrating the interconnectedness of these presences in shaping online learning experiences. This underscores the importance of considering social presence alongside teaching and cognitive presence to facilitate meaningful interactions and knowledge construction in online communities.

In conclusion, social presence within the Community of Inquiry Framework is a multifaceted concept encompassing effective expression, open communication, and group cohesion among participants. As already discussed, these three categories of social presence can be measured within a community and inform the overall experiences of students in e-learning environments. Table 2.1 below is a replica of Garrison et at. (2001) coding table to summarise the three presences together with their indicators.

Table 2.1: Elements of CoI model (Garrison, Anderson, and Archer, 2001)

Elements	**Categories**	**Indicators**
Social Presence	Effective Expression Open Communication Group Cohesion	Emoticons Risk-free-expression Encourage Collaboration
Cognitive Presence	Triggering Event Exploration Integration Resolution	Sense of Puzzlement Information Exchange Connecting Ideas Apply New Ideas
Teaching Presence	Design and Organisation Facilitating Discourse Direct Instruction	Setting Curriculum and Methods Sharing Personal Meaning Focusing Discussion

2.3.1.2 Cognitive Presence

One of the most fundamental elements in the CoI framework is cognitive presence. Many academics have made substantial contributions to our understanding of cognitive

presence because it emphasises students' capacity for learning as well as the promotion of higher-order thinking, which is the goal of higher education institutions. As described by Garrison (2007, p.65), cognitive presence is “the exploration, construction, resolution and confirmation of understanding through collaboration and reflection in a community of inquiry.” This citation indicates that people who are informed by their personal experiences can interpret and make sense of the provided information – whether factual or social – to address their learning needs. For clarity, Garrison et al. (2000) also alluded that cognitive presence encompasses participants in a community of inquiry who are engaged in construction of meaning through sustained reflection and discourse.

It is further attested by Makumane et al. (2023) that cognitive presence plays a crucial role in enabling students to shape their identities according to their personal needs, which are shaped by their unique educational experiences. Therefore, fostering cognitive presence involves learner-centred approaches that cater to everyone’s distinct experiences, whether in offline or online environments. This implies that each student’s learning journey is subjective and shaped by their interactions, challenges, and achievements. These experiences, both in traditional classroom settings and online environments, contribute to how students perceive themselves and their capabilities.

Based on the current evidence, it is reasonable to acknowledge that cognitive presence is considered one of the most complex elements of the CoI framework and challenging to cultivate in online settings (Akyol & Garrison, 2008; Modise (2022). Some scholars, like Taite (2012), as cited in Modise (2020), insist that higher-order thinking is difficult to observe as it involves individual cognitive processes, with many researchers relying on transcript analysis of asynchronous discussions to assess cognitive presence. This argument suggests that while transcripts are valuable for accuracy, they may not fully capture an individual's private thought processes.

Previous research has documented that cognitive presence owes its origin to the ideas of John Dewey on practical inquiry (Junus et al., 2019; Richardson & Swan, 2019; Swan et al., 2009). Dewey believed that the process of reflective inquiry is significant to a worthwhile educational experience. This was premised on the argument that reflective inquiry involves active, persistent, and careful consideration of beliefs or supposed

knowledge considering the grounds that support such views and the conclusions to which they lead. Noteworthy is the fact that as indicated by Fiock (2020), reflective inquiry encourages students to think deeply, question assumptions, and connect new information to prior knowledge, which eventually fosters critical thinking and deeper understanding. Undoubtedly, this process transforms passive learning into an active, engaging experience where students become active participants in their learning journey, ultimately leading to more significant and lasting educational outcomes.

As accentuated by Chiroma et al. (2021) and Swan et al. (2009), cognitive presence progresses through four phases. The first phase, the triggering event, signifies the initial stage where students encounter a problem or question that stimulates their thinking and prompts them to engage in the learning process. This phase serves as a catalyst for cognitive engagement, sparking curiosity and motivating students to delve deeper into the subject matter. Apart from that, the triggering event lays the groundwork for the subsequent phases by creating a context for exploration and inquiry. The second phase is exploration where students actively seek information, analyse different perspectives, and critically examine the problem at hand (Swan et al., 2009). During this phase, students engage in discussions, conduct research, and collaborate with peers to deepen their understanding of the topic. Exploration encourages students to question assumptions, challenge existing knowledge, and develop a comprehensive view of the issue under consideration.

Integration constitutes the third phase. Garrison et al. (2000) reiterate that integration focuses on synthesising diverse perspectives, ideas, and information gathered during the exploration. Students work collaboratively to connect various viewpoints, reconcile conflicting opinions, and construct a coherent understanding of the problem. Additionally, integration promotes critical thinking, reflection, and the synthesis of knowledge, fostering a deeper level of engagement and comprehension. The final phase, resolution, involves reaching a consensus, solution, or conclusion regarding the initial problem or question (Chiroma et al., 2021). Through dialogue, reflection, and collective sense-making, students arrive at a shared understanding or resolution. Resolution signifies the culmination of the cognitive presence process, demonstrating students' ability to apply

critical thinking skills, communicate effectively and collaboratively solve complex problems.

2.3.1.3 Teaching Presence

In blended learning, the CoI framework posits that both instructors and students have a responsibility to contribute to the educational experience. Garrison and colleagues further affirm that teaching presence serves as the community of inquiry's unifying factor. Alternatively put, teaching presence plays a vital role in community of inquiry as it is essential for organising and guiding the other components towards creating a unified and effective learning environment. Cleveland-Innes (2018), however, illuminates that we should be cognisant of the fact that it is named 'teaching presence' and not 'teacher presence' because it allows for a teaching function for both the teacher and the students. While instructors take on a leadership role, Cleveland-Innes (2018) presents evidence that teaching presence also enables and supports peer-teaching among students.

In the CoI framework, Anderson et al. (2001) conceptualised teaching presence as consisting of instructional design, facilitation, and direction of both cognitive and social processes essential in establishing meaningful and educationally valuable learning outcomes. To begin with, instructional design and organisation occur before the course begins (Chiroma et al., 2021). It involves an instructor creating a comprehensive course plan that clearly articulates the learning objectives, course content, and assessment strategies. This plan, as elucidated by Fiock (2020), should be aligned with the overall educational goals and tailored to meet the specific needs and backgrounds of the students.

Correspondingly, there is overwhelming evidence by Chiroma et al. (2021) that a well-organised course design includes detailed syllabi, clear schedules, and explicit instructions for all activities and assignments. The researchers further illustrate that students can navigate the course with confidence, better manage their time, and understand what is expected of them when there is a clear structure in place. In addition, effective design and organisation extend to the selection and integration of appropriate learning materials and technologies. This implies that instructors must carefully curate

and sequence content to facilitate progressive learning, ensuring that each module or unit builds on the previous one (Fiock, 2020). This entails a deliberate blending of books, multimedia materials, interactive exercises, and real-world assignments that accommodate various learning preferences.

Similarly, it is critical to use technology to establish a unified online community. For instance, learning management systems (LMS) could be used to centralise course materials, track progress, and facilitate communication (Makumane et al., 2023). Again, tools such as discussion forums, video conferencing, and collaborative platforms can be integrated to enhance interaction and engagement to make learning flexible and relevant. In addition to guiding students through the learning process, instructors who plan and organise their courses meticulously create a supportive environment that encourages deeper knowledge and active participation from their students.

Facilitation is another crucial aspect of teaching presence. Recent studies (such as Fiock, 2020; Lansangan et al., 2022) have reported that facilitation involves actively guiding and sustaining dialogue among students to ensure that discussions remain focused, inclusive, and conducive to learning. In this scenario, instructors play a pivotal role in creating an atmosphere where students feel comfortable sharing their thoughts and perspectives. This can be achieved by modelling respectful communication, encouraging diverse viewpoints, and providing timely and constructive feedback. Another observation made by Chiroma at al. (2020) is that effective facilitation necessitates instructors to be actively present in discussions, not solely as participants but as leaders who can steer conversations in productive directions, prompt deeper analysis, and connect students' contributions to the course's learning objectives.

Apart from that, facilitation of discourse involves using strategic questioning techniques to stimulate critical thinking and deeper engagement. Open-ended questions, for instance, can prompt students to reflect on their understanding, explore different angles of a topic, and articulate their reasoning. Instructors can also use prompts to link theoretical concepts to real-world applications, thereby making the learning experience more relevant and engaging.

Lastly, direct instruction is a fundamental component of teaching presence that involves offering explicit guidance, explanations, and feedback to students (Fiock et al., 2020). Through emphasising direct instruction, instructors actively provide content knowledge and expertise to support student learning by clarifying concepts, offering feedback, addressing misconceptions, and guiding students through complex topics. Direct instruction can manifest in various forms, including live lectures, recorded videos, detailed explanations in discussion forums, and personalised feedback on assignments. The instructor's presence, as indicated by Singh et al. (2022), scaffolds learning and provides students with the necessary support to comprehend challenging concepts and effectively apply their knowledge.

In summary, studies suggest that effectively incorporating teaching presence into the CoI framework is linked to enhanced student engagement and learning outcomes (Zhang et al., 2016). By utilising a blend of direct instruction, facilitation, and instructional design, educators can establish a secure and interactive online learning space that fosters engagement and knowledge acquisition.

2.4 Application and Relevance of the CoI framework to the study

This theory offered a way to interpret how blended learning was being designed, facilitated, and experienced in Lesotho’s higher education institutions. Unlike broader models of online learning, CoI directly foregrounds the interaction between instructors, learners, and knowledge, which aligned closely with this study’s objective of exploring factors that affect implementation and identifying best practices for student support.

The framework’s teaching presence construct is particularly relevant for exploring how lecturers design, organise, and facilitate blended courses. Since blended learning requires deliberate pedagogical planning and coordination across modalities, teaching presence provides a theoretical foundation for examining the instructional decisions and strategies used to guide learning.

Similarly, social presence is highly applicable to this study because it conceptualises how students and lecturers establish interpersonal communication, trust, and a sense of community in technology-mediated environments. In blended learning contexts especially

in settings where digital interaction is relatively new, the ability of participants to present themselves as active, authentic members of the learning community is essential for sustained engagement. Social presence thus offers theoretical insight into the relational and communicative dynamics that influence participation.

The third element, cognitive presence, is central to understanding how meaning is constructed through discourse, reflection, and inquiry. Since one of the aims of blended learning is to promote deep, self-directed learning, this construct helps frame an analysis of how students make sense of content, integrate new ideas, and apply knowledge across online and face-to-face components. Cognitive presence therefore supports the exploration of blended learning as an active, learner-centred process.

In a nutshell, the CoI framework was not only theoretically relevant but practically applicable because it captured the pedagogical, motivational, and cognitive dynamics underpinning blended learning. Through this framework, the study was able to map its findings onto a widely validated model while contextualising it within the specific challenges and opportunities of Lesotho's higher education sector. The next section discusses the limitations of the CoI framework.

2.4.1 Limitations of Community of Inquiry Framework

Although the Community of Inquiry (CoI) Framework has been widely adopted as a lens for analysing blended and online learning, it is not without limitations. As already elaborated, CoI primarily emphasises the pedagogical and learner-experience dimensions of blended learning through its three core elements: teaching presence, cognitive presence, and social presence. While these constructs capture how knowledge is designed, constructed, and shared, they do not fully account for the structural and technological conditions that underpin effective implementation. For example, issues such as unstable learning management systems, unreliable internet connectivity, inadequate access to devices, and limited digital literacy are not adequately explained within the CoI framework. These factors shape both the opportunities and challenges of blended learning in Lesotho's higher education context yet they remain outside the immediate focus of CoI.

Another limitation of CoI is its tendency to underplay the role of institutional and infrastructural enablers in shaping blended learning outcomes. For example, while social presence can capture student engagement, it does not adequately explain why students disengage when internet access is unreliable or when the LMS fails. Similarly, teaching presence may highlight the importance of lecturer facilitation, but it overlooks barriers related to lecturers' acceptance and use of technology, or the absence of institutional support systems. These omissions highlight the need for an additional theoretical framework that can address adoption and infrastructural factors alongside the pedagogical concerns illuminated by CoI.

To mitigate these gaps, this study incorporated the Unified Theory of Acceptance and Use of Technology (UTAUT) as a complementary framework. UTAUT provides constructs such as performance expectancy, effort expectancy, social influence, and facilitating conditions, which directly align with the challenges raised by participants regarding infrastructure, access, and technology adoption. This theory, together with its constructs, is elaborated in the next section.

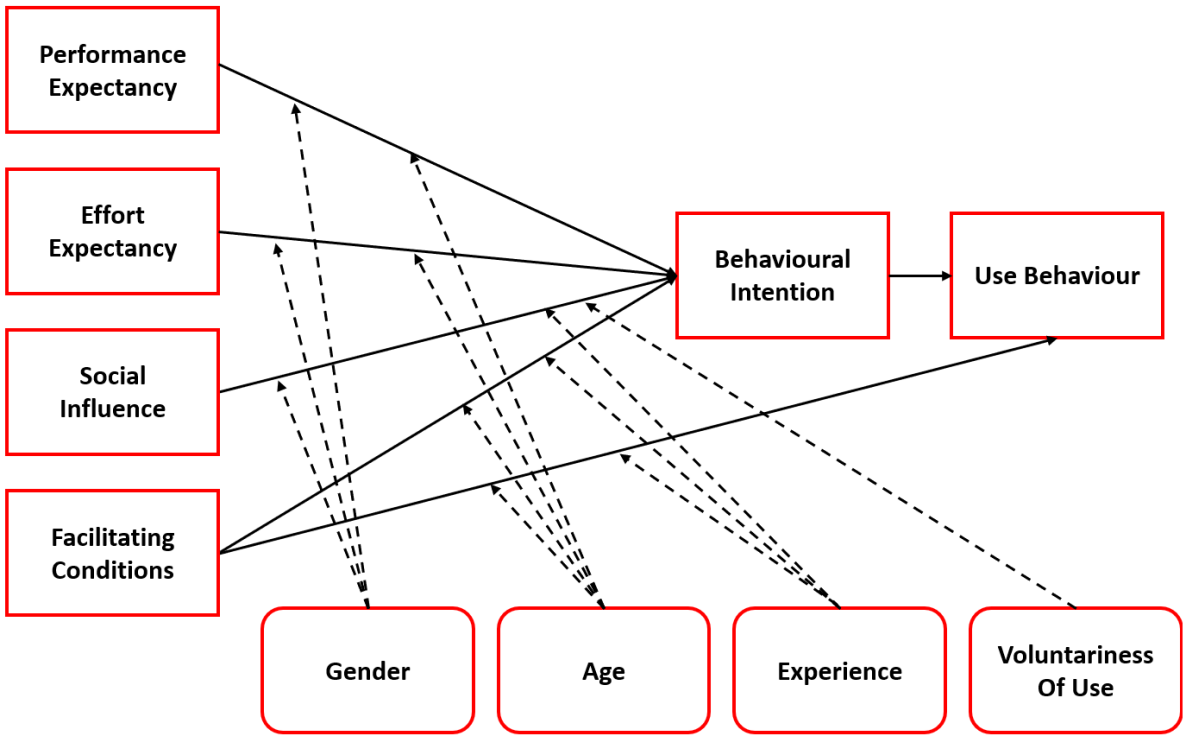
2.5 UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY (UTAUT)

The surge in educational technologies across the globe has had a substantial impact on theories developed to support how technologies could be integrated in the classroom, especially in higher blended education contexts. One such theory developed because of the influx of Technology Acceptance Models (TAMs) is the Unified Theory of Acceptance and Use of Technology (UTAUT). This theory has been instrumental in understanding the factors influencing the acceptance and use of blended learning systems in HEIs. Moreover, the literature points out that this comprehensive theory was developed by Venkatesh and colleagues in 2003 through the review of eight theories explaining the acceptance and use of technology.

The UTAUT framework, as argued by Molefi et al. (2024), was developed to extend the two dominant variables within the TAM framework suggested by Davis (1985). The first variable, namely, the perceived usefulness (PU) explains the extent to which a user believes technology is crucial. The other variable pertains to perceived ease of use (EU)

which mainly focuses on the degree to which any technology is easy to use in the classroom. However, scholars such as Modise (2022) believe that annexation of the eight dominant theories has brought four constructs to thoroughly explain the usage behaviour as well as the acceptance in different user contexts. Furthermore, as mentioned by Venkatesh et al. (2016), the UTAUT identifies four core constructs that significantly influence user acceptance: performance expectancy, effort expectancy, social influence, and facilitating conditions. What should be noted is that each of these constructs plays a critical role in determining an individual's intention to use technology and their actual usage behaviour. The four fundamental elements of the UTAUT model together with four moderating variables are schematically represented below and further elaborated.

Figure 2.3: The Unified Theory of Acceptance and Use of Technology (UTAUT)



Note: Adopted from Venkatesh et al. (2003, p.447)

2.5.1 Performance Expectancy

Venkatesh et al. (2003) define performance expectancy as the “degree to which an individual believes that using the system will help him or her attain gains in job

performance” (p.447). Put differently, the implication is that people think using technology will improve their performance at work. It is believed by Venkatesh et al. (2003) that a person's ability to use a new system or technology will be hampered if they have a negative belief about it. On the same note, Modise (2022) argues that this construct has been consistently shown to be a strong predictor of behavioural intention across various contexts, including in the education sector where students expect that digital tools utilised in blended learning will facilitate better learning experiences.

In the context of blended learning, this construct is particularly relevant as students and educators often seek technologies that can improve educational effectiveness and efficiency. Research indicates that when learners perceive that a blended learning approach will lead to better academic performance, their acceptance and usage of such technologies increase significantly (Galura et al., 2023).

2.5.2 Effort Expectancy

Effort expectancy is conceptualised as the “degree of ease associated with the use of the system” (Ventakesh et al., 2003, p.450). In blended learning, if students find the education technology easy to navigate and use, they are more likely to engage with it effectively. Some scholars, such as Galura et al. (2023) and Molefi et al. (2024), contend that this construct has been shown to significantly influence students' behavioural intentions to use e-learning platforms in HEIs. For instance, if a learning management system is user-friendly, students are more inclined to participate actively in their courses, leading to higher engagement and satisfaction levels. Nevertheless, Venkatesh et al. (2003) believe that if the technology is difficult to operate, then users might develop a negative attitude towards it

2.5.3 Social Influence

According to Venkatesh et al. (2003, p.451), social influence is defined as the “degree to which an individual perceives that important others believe he or she should use the new system”. Put another way, it simply means that individuals are more inclined to adopt a new system or technology if important individuals, such as friends, family, co-workers, or

superiors, believe the individuals should. This also indicates that an individual's attitude and behaviour can be influenced by this perspective, even if one does not fully agree with the system's worth. In blended learning environments, social influence can manifest through peer recommendations, instructor endorsements, and institutional support. Studies have demonstrated that when students feel that their peers and instructors endorse the use of blended learning technologies, their likelihood of adopting these tools increases (Modise, 2022; Molefi, 2024).

2.5.4 Facilitating Conditions

Facilitating conditions refer to the extent to which an individual believes there is adequate organisational and technical support to use technology. This construct includes factors such as access to resources, knowledge, infrastructure, and support that make it easier for a person to adopt and utilise a new technology. In essence, Sanusi (2022) expounds that facilitating conditions focus on how well the environment supports the actual use of the technology, addressing barriers like training, hardware availability, or help from others.

Similarly, existing research recognises the critical role played by facilitating conditions on grounds that even if users have positive attitudes towards the technology, they might not adopt it if they lack the resources or support to use it effectively (Galura, 2023; Hard, 2023). For instance, in a blended educational setting, if a school introduces e-learning platforms but does not provide reliable internet access or sufficient training for both teachers and students, adoption rates may be low despite a willingness to embrace the technology. Therefore, ensuring that these conditions are in place can significantly enhance the likelihood of successful technology adoption.

2.5.5 UTAUT Moderating Variables

Age, gender, and experience are among the most frequently studied moderating factors in the UTAUT framework. Research indicates that these demographic variables can significantly impact how individuals perceive and interact with technology. For instance, studies have shown that younger users often exhibit higher performance expectancy and

are more influenced by social factors compared to older users who may prioritise facilitating conditions such as technical support and resources (Chen et al., 2020). Additionally, gender differences have been observed, with some studies suggesting that male users may have higher performance expectancy than female users, while female users may place greater emphasis on social influence (Aldekheel et al., 2022). This, therefore, highlights the necessity for educational institutions to consider these demographic factors when implementing blended learning technologies to ensure equitable access and engagement. The voluntariness of use – which is the degree to which technology adoption is voluntary versus mandated – can also serve as a moderating factor. Research has indicated that when users feel compelled to adopt a technology, their perceptions of effort expectancy and social influence may differ compared to situations where adoption is voluntary (Aldekheel et al., 2022).

2.5.6 Relevance and Application of UTAUT to the study

The Unified Theory of Acceptance and Use of Technology (UTAUT) was adopted in this study as a complementary theoretical lens because blended learning involves not only pedagogical processes but also the acceptance, utilisation, and integration of digital technologies. In higher education contexts particularly those undergoing digital transformation, technology adoption is central to determining whether blended learning can be implemented effectively. The UTAUT framework therefore provided a structured way of examining how users' perceptions, institutional conditions, and contextual factors influence the uptake of technology-supported teaching and learning.

The framework's core constructs, performance expectancy, effort expectancy, social influence, and facilitating conditions were conceptually aligned with the study's focus on understanding the factors shaping blended learning implementation in Lesotho. Performance expectancy offered a theoretical basis for exploring how lecturers and students perceive the usefulness and potential benefits of blended learning. Effort expectancy provided insight into how ease of use of educational technologies may influence user engagement and willingness to adopt blended approaches.

Similarly, social influence was relevant for understanding how institutional culture, peer expectations, and professional norms may shape perceptions of blended learning within

higher education settings. The construct of facilitating conditions was particularly applicable to this study as it addresses the availability of technological infrastructure, resources, and institutional support systems required for successful technology integration. These constructs enabled the study to frame blended learning not only as a pedagogical innovation, but also as a process dependent on organisational readiness, technology access, and user acceptance.

In conclusion, the two theories that informed the study; CoI and UTAUT are synthesised into a unified analytical model that conceptualises blended learning effectiveness as an interaction between pedagogical engagement and technology acceptance. Within this integrated framework, students' learning experiences, captured through the CoI survey, reflect teaching, social, and cognitive presence in the blended learning environment. Teaching presence influences how instructors' structure and facilitates learning activities, social presence shapes peer interaction and collaboration, and cognitive presence supports critical engagement and knowledge construction. These dimensions provide critical data into how blended learning is experienced from the students' perspective. Concurrently, UTAUT was applied to interpret lecturers' perspectives obtained through interviews. Performance expectancy, effort expectancy, social influence, and facilitating conditions shape how lecturers perceive and implement blended learning technologies. Positive perceptions among lecturers enhance the design, delivery, and facilitation of blended learning, which in turn strengthens students' engagement across CoI dimensions. Conversely, negative perceptions or low confidence with technology can constrain teaching presence and limit the potential for meaningful learning, even when students are motivated and collaborative.

This integrated CoI–UTAUT framework therefore enabled the study to link lecturers' pedagogical practices and technological perceptions with students' learning experiences. It guided the development of interview protocols and survey instruments, informed the analytical process, and supported the interpretation of findings by examining blended learning as a dynamic interaction between instructional practices and technology acceptance within the Lesotho higher education context.

The next section discusses another important theory which is applicable and relevant in blended learning environments although it has not necessarily been applied in the context of this study.

2.6 THE COMPLEX ADAPTIVE BLENDED LEARNING SYSTEM (CABLS) FRAMEWORK

Another important framework used in education to inform blended learning practices is the Complex Adaptive Blended Learning System (CABLS). The framework has its origin in Complex Adaptive Systems applied in natural and exact sciences where it was used to interpret the non–linear and dynamic systems “such as neural systems, ecologies, galaxies, and social systems” (Wang et al., 2015, p.382). According to Wang and Yang (2015, p.390) the CABLS framework aimed to “facilitate a deeper, more accurate understanding of the dynamic and adaptive nature of Blended Learning.” What is unique about this framework is that it is centred on the principles of complexity. Complexity, according to Yan et al. (2022), implies that blended learning is a dynamic and adaptive process that changes because of interactions between different elements of an educational system. Adaptability in blended learning (Becher Araujo Moraes, 2023) refers to the ability to modify instructional content, pace, and delivery based on feedback from learners or environmental changes, ensuring that the system evolves.

Equally important, the ability to co-evolve is another interesting aspect of this framework. In line with Yan et al. (2023), this refers to how different components within the blended learning environment such as learners, instructors, technology, content, and institutional policies mutually adapt and influence each other over time. For instance, when new technology is being introduced, the other components such as learners, have to adapt in response to the changes in technology. Because of this co-evolution, the blended learning environment remains relevant, responsive, and resilient to change, both internally and externally.

Like other intricate adaptive systems, these systems are composed of separate but related subsystems, including learners, teachers, content, technology, learner support and institutional policies. These subsystems interact to produce emergent patterns and

behaviours. Figure 2.4 below illustrates the six main interconnected components of the CABLS framework which impact each other. It should also be noted that each subsystem has its own subsystems and they all interact together to form a blended learning system (Wang et al., 2015).

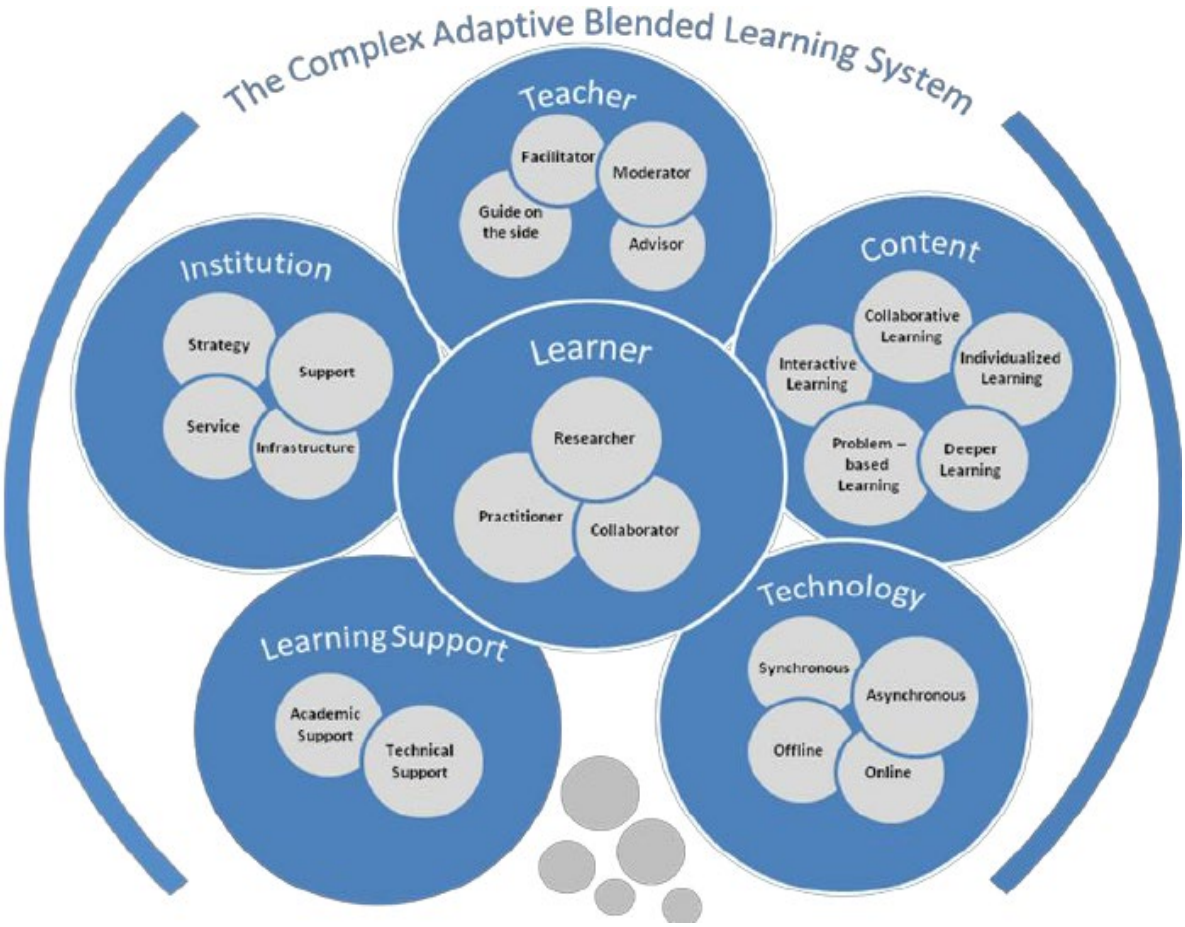


Figure 2.4: The CABLS Framework adapted from Wang et al. (2015)

2.6.1 Learner

The learner is at the centre and adapts to the other components of the system. Cleveland-Innes (2018) stresses that the learner shifts from being passive to being an active member of the system because of undergoing a dynamic and adaptive process of change due to continued interaction with other subsystems. This change, as observed by Yan et al. (2022), is significant in the 21st century because learning is centred on the needs and the

interests of the students. Fundamentally important, the latter researchers further accentuate that the online learning environment pushes students to become independent learners and self-paced, leading to active participation in the learning process. This component aligns with the social presence in the CoI framework as learners are encouraged to have a collaborative culture of learning through sharing ideas with their peers within a blended learning system (Yan et al., 2023).

2.6.2 Teachers

In blended learning, the role of the teachers is new and keeps on co-evolving with other components of the system. As Wang and Yang (2015) articulate, “teacher’s role co-evolves with other subsystems, particularly with learners, to become a generation of teachers with new identities and multi-disciplined professional skills” (p.383). According to this framework, this generation of teachers is given new names such as facilitators, e-moderator, guides on the side, and advisor. This role aligns with the teaching presence in the CoI framework where teachers act as instructional designers as well as facilitators in blended learning (Garrison et al., 1999).

2.6.3 Content

According to Mcgee and Poojary (2020), content refers to the subject matter and the materials used to create better learning experiences for blended learners until mastery is achieved. The instructional materials can be shared on online learning platforms for students and teachers to engage either before, during, or after the learning experience. Additionally, Wang et al. (2015) posit that students have the discretion to choose digital content for their self-paced learning and problem-based learning. As exhibited in Figure 2.4, the content in blended learning should offer an opportunity for deep learning and facilitate collaborative learning. Looking at the nature of this subsystem, I therefore submit that it is consistent with the cognitive presence in the CoI framework that suggests critical reflection and deep learning in blended learning.

2.6.4 Technology

The influx of education technology in the 21st century has made teaching and learning complex in nature. The equipment, resources, and methods that increase human capacity

to accomplish any task are considered technology in this framework (Wang et al., 2015). At this stage, new technologies are tested, and those that stand the test of time are adopted in the system while those which cannot function properly are discarded. Again, Yan et al. (2023) indicate that the technology in blended learning is used either for online learning or students are assigned some tasks to do offline. The interactions, as depicted in Figure 2.4, could also be synchronous or asynchronous especially for classes of different sizes.

2.6.5 Learner Support

For students to be competent and learn effectively in blended learning, they need continuous support. Since learning in the CABLS framework is learner-centred, this theory pushes learner support from the background to the forefront making this theory distinguished from others. As per Figure 2.4, there are two kinds of support, namely, academic and technical support. Wang et al. (2015) highlight that academic support involves assisting the blended learners to develop effective strategies for managing time and having collaborative skills. Similarly, technical support is viewed by Cleverland-Innes (2018) as support promoting technological skills among students to operate the devices used for effective teaching and learning.

2.6.6 Institution

Consistent with Mcgee and Poojary (2020), institution is vital as it takes blended learning (BL) from the course level to the institutional level. This implies that the institution should provide support mechanisms such as strategies for effective implementation of blended learning, policies that guide sustainable practices as well as technological infrastructure. These mechanisms are connected and influenced by the learner, the teacher, the technology, the content, and the learning support.

2.7 CONCLUSION

This chapter presented and discussed the Community of Inquiry Framework by Garrison, Anderson, and Archer (2000) as well as other theories namely, UTAUT and CABLS, to further understand the comprehensive nature of blended learning in HEIs. It is crucial to

note that the CoI theory as well as UTAUT framework were deemed relevant and applicable for the study since they informed the study in various ways including the formation of research questions and the entire research design, as well as the literature. The next chapter reviews literature in relation the objectives of the study.

CHAPTER 3

REVIEW OF RELATED LITERATURE

“Life without Literature is a life reduced to Penury.” MH Abrams

3.1 INTRODUCTION

This chapter explores various aspects of blended learning in higher education. It begins by conceptualising blended learning within this context, discussing its components, and reviewing research studies highlighting its benefits and challenges. Additionally, the chapter examines factors influencing successful implementation of blended learning from the perspectives of students and lecturers in higher education. A key focus is placed on institutional support systems and their role in fostering effective blended learning initiatives.

3.2 Conceptualisation of Blended Learning

Since the onset of COVID-19, the term blended learning (BL) has gained widespread usage in education systems worldwide. This resulted in significant discussions on finding a comprehensive definition for blended learning. Due to its ambiguity, Oliver and Triqwell (2005) established that BL requires two or more things that could be integrated: online and face-to-face interaction. Driscoll (2000) stated that blended learning has numerous meanings, including mixing web-based technology, pedagogical approaches, instructional technologies, and actual job tasks. Therefore, the debates around blended learning have sparked the development of various definitions in the context of higher education.

Graham (2006) and Garrison and Kanuka (2004) offer one of the most referenced definitions of blended learning. Graham defines it as "the combination of face-to-face and computer-mediated instruction" (p.5). Garrison and Kanuka describe it as "the thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (p.96). Comparably, the University of South Africa’s ODL Policy (UNISA, 2008, p.1) defines blended learning as “accomplished by using multiple teaching and learning strategies, a range of technologies in combination with face-to-face interaction

and the deployment of both physical and virtual resources." Similarly, Garrison and Vaughan (2008) define it as "the organic integration of thoughtfully selected and complementary face-to-face and online approaches." (p.148).

It is evident from the definitions provided that blended learning has two components, namely, the online component and the face-to-face interaction. All the authors agree that BL involves a deliberate and strategic integration of face-to-face instruction with online or technology-mediated learning experiences. They emphasise the thoughtful combination of traditional classroom methods with digital resources and approaches to enhance the teaching and learning process. Furthermore, the two earlier definitions (Garrison & Kanuka, 2004; Graham, 2006) have led to Hrastinski (2019) recommending six broader conceptualisations of what blended learning entails.

First, there is an inclusive conceptualisation of blended learning. Hrastinski (2019) argued that it should be seen as inherently inclusive. Inclusive conceptualisation focuses on providing equitable access to education for all students, regardless of their background, learning abilities, or socio-economic status. This argument is further strengthened by Graham (2006), who suggests that this approach emphasises the need to accommodate diverse learning needs using technology and flexible teaching methods. Importantly, it ensures that both the online and face-to-face components of a blended learning course are accessible, and it is designed to support students with disabilities, language barriers, or other challenges. Strategies such as differentiated instruction cater to various learning styles, while assistive technologies help support students with special needs (Makumane & Mpungose, 2022; Johler & Krumsvik, 2022) Additionally, efforts are made to minimise the digital divide in different countries such as South Africa and Lesotho by providing resources and support to students from disadvantaged backgrounds (Makumane & Mpungose, 2022).

Hrastinski (2019) defines blended learning in terms of quality dimensions. According to the quality conceptualisation of blended learning, the advantages of in-person and online instruction can be carefully combined to improve quality or have other beneficial impacts. This emanates from Garrison and Kanuka's (2006) assertion that online and in-person instruction are combined and should be done 'thoughtfully'. The available literature by

Ren (2024) has shown that the quality of blended learning significantly impacts student satisfaction and learning outcomes. For instance, combining online and offline teaching methods can lead to improved academic performance and enhanced student engagement (Wong et al., 2014). Moreover, the quality of the learning environment, including the support provided by instructors and the resources available to students, is essential for fostering a successful blended learning experience (Vaughan et al., 2023).

Moreover, the quantity conceptualisation focuses on the proportion of online and face-to-face components within a blended learning environment. It examines how much of the curriculum is delivered online versus in-person and how this balance impacts student learning and engagement. Some scholars, such as Allen and Seaman (2010), define blended learning as a course that combines in-person and virtual instruction where a significant amount of the content is presented online, usually through online forums, and there are generally fewer in-person sessions. Additionally, they recommended that between 30% and 70% of the information be supplied online in blended learning. Remarkably, findings presented by Bernard et al. (2014) showed that for a programme to be considered blended learning, 50% of it should be face-to-face instruction. Therefore, based on the available literature, it is fair to conclude that the quantity dimension underscores optimising content delivery distribution to achieve the best learning outcomes. This involves analysing the ideal mix of synchronous (real-time) and asynchronous (self-paced) activities while considering course structure, including the frequency and duration of face-to-face sessions. Thus, strategies are developed to maximise the benefits of both components and ensure active student participation and knowledge retention.

Conversely, congruent with Hrastinski (2019), synchronous conceptualisation strongly emphasises students and teachers interacting in real-time. It entails live sessions where participants interact via live chats, video conferencing, or other collaborative tools, creating a sense of community and offering chances for prompt input and lively debate. Fernandez et al. (2022) argue that synchronous sessions in blended learning can enhance the sense of community among learners as they can participate in discussions and activities together, regardless of their physical location. In blended learning, platforms

such as Zoom, Microsoft Teams, or Google Meet are frequently utilised to support live classes and discussions. It has also been noted by Nkhi et al. (2023) that scheduled class times also facilitate direct interaction and teamwork, while interactive elements like polls, breakout spaces, and live Q&A sessions keep students interested.

The digital classroom conceptualisation centres on the use of a robust online platform where most, if not all, learning activities are conducted (Hrastinski, 2019). This includes using Learning Management Systems (LMS) and various digital tools that facilitate online learning (Ho et al., 2022). The digital classroom allows for a more flexible learning experience, where students can access resources and complete assignments independently at their own pace. Moreover, incorporating digital technologies can enhance the quality of instruction by providing diverse learning materials and interactive activities that engage students more effectively than traditional methods alone. However, successfully implementing a digital classroom requires careful planning and consideration of the technological infrastructure available to students and educators (Versteijlen et al., 2023). The next section discusses the models of blended learning.

3.3 Models of Blended Learning

According to Nkhi et al. (2023), for blended learning to be effective, it must include formal and informal learning, peer interaction, individual work, and group activities, among others. This viewpoint is specifically related to the comprehensive model suggested by Ayob et al. (2020) comprising four models of BL: the rotational model, the flex model, the self-blend / à la carte model, and the enriched virtual model. Figure 3.1 below depicts these models.

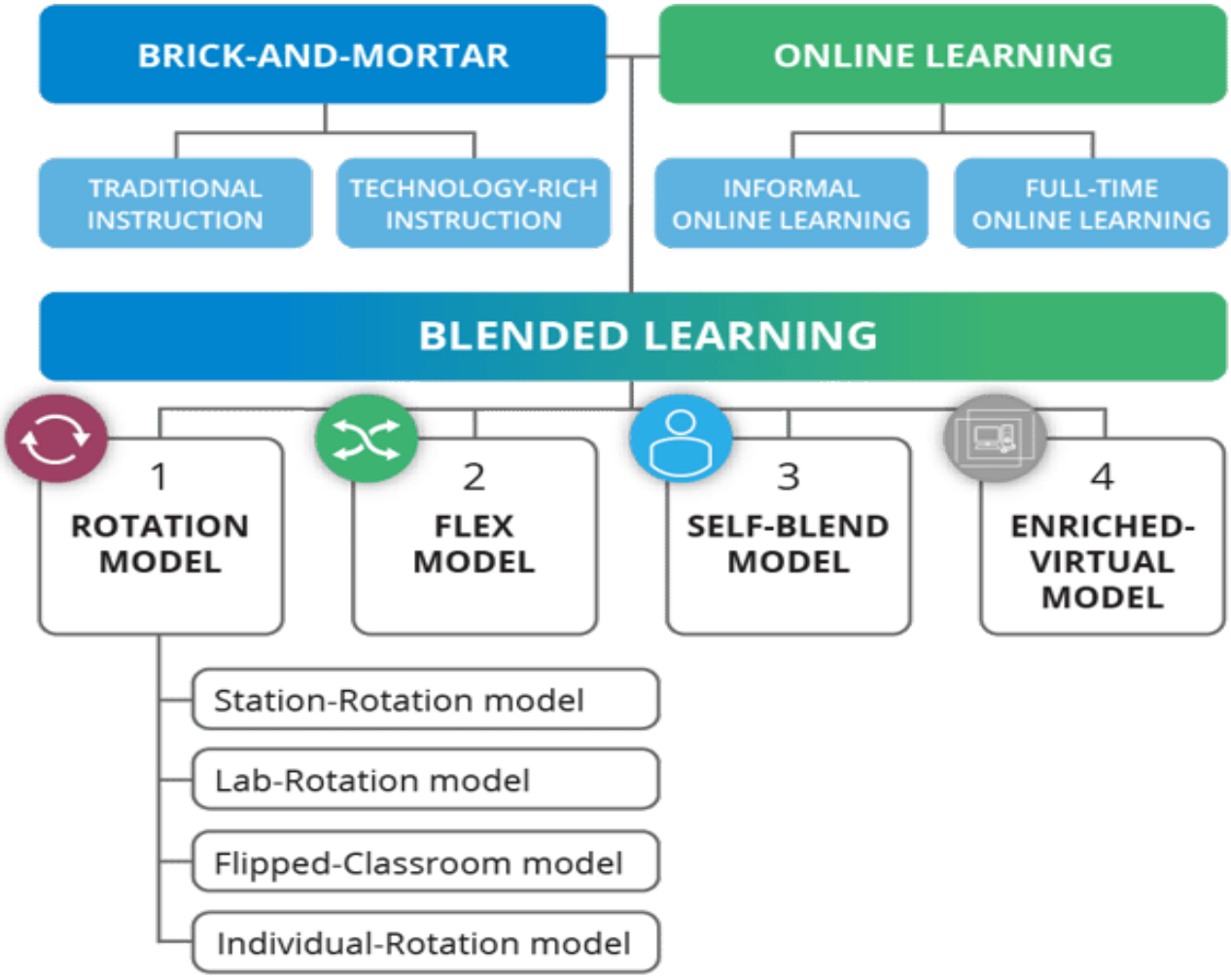


Figure 3.1: Blended Learning Models (Source: Ayob et al., 2020)

One commonly used blended learning model to inform online education globally is the Rotation Model (Nkhi et al, 2023) which operates on the principle of rotating students through different learning activities within a classroom or across various learning environments. Persistent with Ayob et al. (2020), this model can be implemented in several ways, including station rotation, lab rotation, flipped classroom, and individual rotation. In station rotation, students circulate between various stations, designed for a different type of learning activity, such as small group discussions, independent work, or digital lessons. This setup provides tailored and differentiated instruction, ensuring that students receive the support they need to master the content (Nkhi et al., 2023). However, in low-resource environments such as Lesotho, the effectiveness of station rotation may

be constrained by limited access to digital devices, unstable internet connectivity, and overcrowded classrooms, which can restrict learners' ability to engage fully with online stations. As a result, the potential benefits of differentiated instruction may not be equally realised across all schools.

On the other hand, the lab rotation within the station rotation involves students alternating between different settings, one of which is a designated computer lab (Nagy, 2018). While this model can maximise the use of limited technological resources by centralising devices in one location, it may also create scheduling challenges and reduce instructional time in institutions with inadequate computer facilities or frequent power interruptions.

The Flipped Classroom is another widely adopted blended learning model. It reverses the conventional teaching method by having students learn new content through online resources such as video lectures outside the classroom. When students return to class, they engage in practical, hands-on activities, discussions, or problem-solving exercises guided by their teacher. As Ibrahim and Nat (2019) and Nkhi et al. (2023) argued, this approach maximises classroom time for collaborative work. It allows teachers to provide targeted support and clarification. According to Faustino & Kaur (2021, p.186), "student attention in the learning process is increased through the utilisation of flipped classroom model." Despite these advantages, the flipped classroom model assumes that learners have reliable access to digital devices and internet connectivity at home. In low-income and rural communities, this assumption may not hold, thereby limiting students' ability to prepare adequately before class. Consequently, the effectiveness of this model in low-resource contexts may depend heavily on institutional support mechanisms, such as provision of offline learning materials or school-based access to digital resources.

Lastly, the Individual Rotation is a station rotation that personalises the learning experience. In this case, it is crucial to acknowledge the perspective of Ayob et al. (2020) who assert that students are allowed to rotate between different activities based on their personalised schedules set by the teacher or a digital programme. Unlike other rotation models where all students follow the same sequence, the individual rotation model caters to each student's unique learning pace and needs. Although this model promotes personalised learning, its successful implementation often requires advanced learning

management systems and continuous monitoring by teachers. In under-resourced institutions, limited technical infrastructure and high teacher workloads may hinder the effective management of individualised learning pathways.

Besides the station rotation models elaborated, Ayob et al. (2020) propose the Flex Model. This model centres on a flexible structure where most content is delivered online. However, students can still access a physical classroom environment for support and guidance as needed (Chowdhury, 2020). In this setup, teachers are facilitators rather than traditional instructors who provide individualised assistance by leading small group discussions or offering targeted interventions. The flexibility of this model, as observed by Nagy (2018), allows students to work at their own pace, moving forward when they master the material and taking extra time if needed, making it well-suited for diverse learning needs. Furthermore, the flex model promotes a more inclusive learning environment as it can support students who may face barriers to traditional classroom attendance (Kumar et al., 2021). In low-resource contexts, however, the heavy reliance on online delivery may pose significant challenges due to inadequate bandwidth, limited device availability, and inconsistent technical support. While the flex model promotes learner autonomy, its sustainability in developing contexts may require substantial institutional investment and policy support.

The Self-Blend Model is a blended learning form where students take extra online courses or modules that supplement their traditional in-person education. Research indicates that this model can enhance student satisfaction and engagement by providing flexibility and catering to individual learning preferences (Pool et al., 2017; Adel & Dayan, 2021). This model empowers students to extend their learning beyond the classroom, giving them greater autonomy to explore topics that interest them or require additional study. By selecting online resources independently, learners take responsibility for their academic progress, which fosters a sense of ownership and self-discipline. Lastly, the enriched virtual model integrates online learning with periodic face-to-face sessions. This model is particularly beneficial for courses that require hands-on activities or collaborative projects, as it combines the advantages of online flexibility with the benefits of in-person interaction. Studies have shown that this model can lead to improved learning outcomes by allowing

students to engage with content online while still having opportunities for direct interaction with instructors and peers (Kumar et al., 2021).

Noteworthy is the fact that the effectiveness of blended learning in Lesotho depends on understanding the models that students and instructors choose. Therefore, reviewing these models is essential for the current study. Notably, the models demonstrate the potential of adaptable, student-centred learning settings, which can be especially helpful in tackling issues like scarce resources, differing student readiness, and the requirement for individualised learning situations.

3.4 Benefits of Blended Learning in Higher Education

In higher education worldwide, blended learning has become a significant trend. The potential of this model to raise student engagement and improve learning results is becoming more widely acknowledged. Available literature attests that blended learning can offer a more individualised educational experience that empowers students to direct their learning, which is especially advantageous in various educational settings (Jeffrey et al., 2014; Dziuban et al., 2018). As further supported by Mokenela (2019), the flexibility of blended learning accommodates various learning styles and preferences, eventually fostering a more inclusive educational environment. In the context of Lesotho, however, there is limited research exploring how blended learning can address the country's unique educational challenges, such as large class sizes and limited access to learning resources, highlighting a gap that requires further investigation.

- ***International perspective***

From an international perspective, the effectiveness of blended learning has been well-documented. Studies have shown that blended learning approaches can improve academic performance and lead to higher student satisfaction compared to traditional learning methods (Becher Araujo Moraes, 2023; Vaughan et al., 2023; Westerlaken et al., 2019). For instance, a systematic review by Dziuban et al. (2018) highlighted that blended learning enhances knowledge acquisition and promotes students' critical thinking and problem-solving skills. Furthermore, the COVID-19 pandemic accelerated the adoption of blended learning as institutions sought to maintain educational continuity

while adhering to health guidelines (Olawumi & Mavuso, 2022). Undoubtedly, this shift underscored the importance of integrating technology into educational practices, ensuring that BL becomes an indispensable component of the digital era.

However, it should be noted that most of these international studies are situated in contexts characterised by strong digital infrastructure, reliable internet connectivity, and well-resourced institutions. This implies that the reported benefits are closely linked to favourable technological and institutional environments. Consequently, the positive outcomes observed globally may not be directly transferable to contexts with limited resources, such as many countries in Sub-Saharan Africa and Lesotho in particular. Yet, in Lesotho, the sudden transition to blended learning during the pandemic exposed gaps in digital infrastructure and technological preparedness. This, therefore, calls for an urgent need to examine how these challenges impact the sustainability of blended learning models.

- ***African perspective***

In Africa, particularly in Sub-Saharan Africa, blended learning has been acknowledged as an affordable way to solve educational difficulties, especially in settings with few resources. There is a consensus among various scholars that blended learning can reach underserved groups, as evidenced by research conducted in Malawi that showed it could effectively train community health workers (Mastellos et al., 2018; Sissine et al., 2014). However, implementing blended learning in Africa faces significant barriers, including inadequate infrastructure, limited access to technology, and varying levels of digital literacy among educators and students (Gqokonqana et al., 2022; Boateng, 2024).

In contrast to international contexts where blended learning is often implemented strategically, African institutions frequently adopt it under constrained conditions and with limited institutional support. While global studies emphasise learning effectiveness and innovation, African studies tend to foreground issues of access, affordability, and survival within limited-resource environments. This suggests that in Africa, blended learning is often driven more by necessity than by pedagogical reform. Despite these challenges, one could concur with Kumar et al. (2021) that the potential benefits of blended learning in enhancing educational access and quality remain substantial.

Focusing on South Africa, Mpungose (2020) and Modise (2022) maintain that the blended learning model has gained traction in higher education institutions, particularly in response to the disruptions caused by the COVID-19 pandemic. This is further evidenced by research which indicates that South African educators have increasingly adopted blended learning strategies to enhance student engagement and learning outcomes (Naidoo & Singh-Pillay; Mmakola & Maphalala, 2023). For instance, studies have shown that blended learning can improve academic achievement among students in various disciplines, such as engineering and the sciences (Hockly, 2018). However, challenges such as disparities in access to technology and varying levels of preparedness among educators continue to hinder the widespread implementation of blended learning (Gqokonqana et al., 2022; Rensburg & Oguttu, 2022). In contrast, Lesotho's experience remains under-explored, and disparities in access to digital resources are even more pronounced. The present study tries to address this gap by assessing the readiness of higher education institutions in Lesotho to adopt and sustain blended learning effectively.

In Lesotho, Nkhi et al. (2023) and Makumane et al. (2023) reveal that blended learning gives students access to various digital resources and promotes a learner-centred approach. In addition to encouraging active participation, this strategy guarantees that instruction will continue even during disturbances like pandemics or strikes. According to the lecturers who participated in Nkhi et al.'s study (2023) blended learning is a successful strategy that significantly improves both the teaching and learning processes. While these findings mirror international and regional evidence on the pedagogical benefits of blended learning, they do not sufficiently account for the structural and institutional challenges unique to Lesotho. Unlike global and South African contexts where institutional systems often support blended learning, implementation in Lesotho remains fragile and highly dependent on individual initiative.

Notwithstanding these contributions, there is a sample gap because the study was only conducted at one university, which could limit the findings' applicability to other universities. The researchers also used a qualitative approach to generate data. This contrasts with many international studies that employ large-scale and mixed-methods designs, allowing for broader generalisation and stronger empirical validation. The current

study, which uses a mixed-methods approach, aims to close the gap by sampling a sizable population of lecturers and students in Lesotho's higher education institutions to look into blended learning more broadly in HEIs.

In conclusion, Lesotho faces a significant obstacle in implementing the advantages of BL in higher education. To put it bluntly, there is a considerable lack of information in the literature about blended learning's use and efficacy in Lesotho, even though its potential to improve educational access and quality is acknowledged. As earlier mentioned, most current research concentrates on larger African contexts, with few studies addressing the particular opportunities and problems in Lesotho's educational landscape (Rensburg & Oguttu, 2022). This disparity underlines the necessity of the current study to examine the possibilities of blended learning in Lesotho's universities, considering elements like instructional techniques, support systems, digital literacy, and infrastructure. It is essential to fill these gaps with targeted research to create effective blended learning strategies that meet the students' specific demands.

3.5 Challenges of Blended Learning in Higher Education

Although blended learning has multifaceted benefits, including flexibility (Mokenela, 2019; Nkhi et al., 2023), its implementation faces numerous challenges (Govender & Mpungose, 2022). To begin with, institutions worldwide have reported difficulties in effectively integrating technology into their curricula, leading to inconsistent learning experiences among students. This is substantiated by a systematic review conducted by Rasheed et al. (2020), which emphasised that challenges in the online components of blended learning often stem from inadequate technological infrastructure and a lack of training for educators. These findings resonate with what I have noticed in Lesotho, where the need for robust technological support and comprehensive training for educators remains a significant barrier to implementing successful blended learning.

Furthermore, the COVID-19 pandemic exacerbated these issues, revealing gaps in global preparedness and adaptability among institutions (Mpungose, 2020; Mhlanga, 2021; Krull, 2023). This implies that many universities were abruptly obliged to switch to online and mixed learning strategies during the pandemic. As a result, many schools and

universities found it difficult to offer all students and faculties dependable internet connectivity, sufficient devices, and essential digital resources. This sudden shift revealed serious holes in their technical infrastructure (Modise & Van den Berg, 2023). Again, as a result of the abrupt shift to online learning without adequate technical infrastructure, I believe this hindered social presence in the CoI framework, making it challenging to create meaningful interactions. Even in Lesotho, there was a gunpoint use of educational technologies (Makumane et al., 2023), which compelled HEIs to migrate to the online component of blended learning. As a result, this has widened the digital divide and brought in several challenges the study intends to investigate.

In the African context, there is overwhelming evidence indicating that the challenges of blended learning are compounded by infrastructural deficits such as limited access to reliable internet and electricity, which are critical for effective online learning (Smit & Bester, 2022; Asamoah, 2019). The rapid expansion of educational technologies has not been matched by the necessary support systems, leading to disparities in student engagement and learning outcomes. Recent studies by Ajani (2023) and Teane (2024) indicate that while there is a growing interest in blended learning, many institutions struggle with low adoption rates due to these infrastructural challenges. Additionally, effective learner support services are paramount as students often require guidance to navigate the complexities of blended learning environments (Asamoah, 2019; Boateng, 2024).

Similarly, in South Africa, the implementation of blended learning has been met with mixed results. While some universities have embraced this approach, significant barriers remain. According to Ajani (2023), rural institutions confront significant difficulties such as low levels of technical literacy among teachers and students, making it challenging to use blended learning methodologies effectively. Moreover, other scholars such as Rensburg and Oguttu (2022) believe that the lack of a cohesive understanding of blended learning among educators leads to varied interpretations and implementations, further complicating the learning experience.

The COVID-19 pandemic also highlighted the urgent need for institutions to adapt their teaching methods, yet many educators remain unfamiliar with best practices in blended

learning (Krull, 2023; Olawumi & Mavuso, 2022). In Lesotho, the challenges of blended learning are particularly pronounced. The country faces significant infrastructural limitations, including unreliable internet access and electricity shortages, which effectively hinder implementing blended learning models (Mokenela, 2019; Nkhi et al., 2023; Makumane et al., 2023). Additionally, a notable gap in technological literacy among educators and students limits the potential benefits of blended learning initiatives. A lack of resources and support systems essential for the successful adoption of blended learning characterises the educational landscape in Lesotho. This gap is critical, as it affects immediate learning outcomes and the nation's long-term educational development.

3.6 Blended Learning in Developing Countries

Benchmarking from other developing countries and understanding how they have implemented blended learning in their higher education institutions is important. To begin with, India, as one of the developing countries, supports the adoption of BL through its National Education Policy (2020). Evidence from Saboowala and Mishra (2020a) indicates that blended learning in the Indian context allows for strategic integration of various learning modes, ultimately enhancing the educational experience for teachers and students. Teachers in India have reported that this approach fosters collaboration and improves engagement, particularly in rural areas where traditional educational resources may be lacking (Shrivastava & Shrivastava, 2022). The flexibility of blended learning has been instrumental in addressing the challenges posed by the pandemic, allowing educators to adapt their teaching methods to meet the needs of their students (Saboowala & Mishra, 2020b).

Morocco is another case study that offers a convincing example of the use of blended learning. Blended learning has gained popularity in Morocco's higher education system to boost student involvement and raise academic standards. According to Achahbar and Khoumssi (2023), this strategy has helped reframe higher education as being more learner-centred and encouraged students to engage in active learning and self-regulation. The technology integration in classrooms has facilitated a more interactive learning

environment, enabling students to take ownership of their learning processes (Achahbar & Khoumssi, 2023). Furthermore, the Moroccan experience underscores the importance of institutional support and teacher training in successfully implementing blended learning models.

In Indonesia, blended learning has gained traction as a response to the educational disruptions caused by the pandemic. The Indonesian government has actively promoted the use of technology in education, leading to the development of various blended learning initiatives across the country. For instance, the introduction of web-based learning in teacher training programmes in 2016 marked a pivotal shift towards utilising Web 2.0 technologies for professional development. However, the effectiveness of such initiatives has been met with mixed results. Vasantan's (2021) report indicates that these programmes have improved students' motivation and engagement, particularly in remote areas with limited access to traditional educational resources. The combination of online resources and face-to-face interactions has allowed educators to tailor their teaching methods to suit the diverse needs of their students better, fostering a more inclusive learning environment (Vasantan, 2021).

Moreover, Kenya's experience with blended learning highlights the potential of this approach to enhance educational access and equity. The Kenyan government has invested in digital learning initiatives, particularly in rural and underserved communities, to bridge the educational gap exacerbated by the pandemic (Mabeya, 2020). During COVID-19, the Ministry of Education encouraged educational institutions to adopt a hybrid model that combines traditional classroom instruction with online learning platforms such as radio and television to enhance accessibility (Amimo, 2021). This shift aligns with the broader goals outlined in Kenya Vision 2030, which emphasises the importance of digital education in improving access to higher education and fostering socio-economic development (Goshtasbpour et al., 2022). Similarly, Makoe (2022) revealed that online learning and blended learning in Kenya's education system have significantly improved students' academic performance and engagement levels as they allow for a more personalised learning experience.

In conclusion, implementing blended learning in developing countries such as India, Morocco, Indonesia, and Kenya demonstrate its potential to enhance educational outcomes and accessibility. The success of these initiatives, as highlighted in the literature, depends on factors such as institutional support, teacher training, and the ability to adapt to local contexts. As blended learning evolves, educational stakeholders must leverage its advantages to create more inclusive and effective learning environments.

3.7 Current state of technology Infrastructure in Lesotho Higher Education Institutions

Lesotho's information and communication technology (ICT) system has grown over the last 10 years, reaching "nearly" 96% coverage of mobile networks (Lesotho Communication Authority [LCA], 2017) from an underdeveloped state. Despite this significant growth, LCA claims that the country has the lowest broadband penetration rates in the region for both the number of active subscribers and the intensity of broadband use, according to the ITU. As per the statistics of the national household survey of ICT in Lesotho with a population sample of 2167 households depicted in Table 3.1, mobile phones are the predominantly used form of technology in rural, peri-urban and urban settlements of Lesotho.

Table 3.1: Ownership of Technologies in Lesotho

Type of technology	% of sample	Settlement		
		Urban	Peri-Urban	Rural
Owned Desktop	11.8	14.1	5.4	4.5
Owned Laptop	25.2	27.1	24.7	17.2
Owned Tablet/iPad	7.8	7.8	17.4	4.9
Owned Mobile phone	78.7	86.9	88.2	72.1

Source: *Lesotho Communication Authority (LCA) (2016)*

This background information on the status of ICT across the country is essential, especially in the present study focusing on higher education. While these findings give hope for the smooth implementation of blended learning in HEIs in Lesotho, Perrin (2018) contends that rural adults are less likely to use digital technologies than non-rural adults who own multiple devices to access the internet.

Along similar lines, Mokenela (2019) and LCA (2016, 2017) suggest that Lesotho is still faced with several ICT challenges, thus limiting its potential for new ways of teaching. In essence, this low technology uptake was attributable to factors such as lack of electricity and household social and economic statuses. There was also an institution that was not on the Lesotho Electricity Company (LEC) power grid and relied on solar energy. As a result, it did not have adequate power to run all computers for students (LCA, 2016). Inadequate power supply affects the consistent operation of essential digital tools and infrastructure, such as computers and internet connectivity, which are critical for a successful blended learning environment. When electricity is limited or unreliable, as in the case of Lesotho, students and lecturers may struggle to participate in online components of courses, access digital learning resources, or complete assignments. This energy constraint undeniably undermines the flexibility and accessibility that blended learning aims to offer, potentially widening the digital divide and exacerbating educational disparities, particularly for students in rural or under-resourced areas.

Besides the lack of digital literacy among teachers, the Lesotho Higher Education Institutions highlighted additional significant obstacles to ICT adoption and implementation, arranged by frequency of occurrence (LCA, 2016):

- Lack of funding;
- Delays in buying and/or [sic] replacing ICT equipment;
- Low bandwidth;
- Lack of IT/ICT policies;
- Unreliable network;
- No Internet access in the area.

Despite 3G and 4G coverage exceeding 90%, Lesotho's two Internet service providers, ETL and VCL, insisted that the high cost of ICT devices and data were "barriers to access and use" of the Internet (LCA, 2017b, p.27). This also acts as a threat to the success of e-learning initiatives in Lesotho.

3.8 Existing Policies and Initiatives to Online and Blended Learning in Lesotho

Lesotho is no exception to the idea that ICTs can fundamentally change higher education teaching, learning, research, and administration. In conjunction with this, in 2005, Lesotho adopted a National ICT Policy to address the educational system's challenges and the achievement of development goals as envisaged in Vision 2020 (Isaac, 2007). As articulated by Isaac (2007), one of the strategies for the policy, especially in education, is “promoting electronic distance learning, training, and virtual learning systems to complement and supplement campus-based education and training systems” (p.6). Since then, Lesotho has made remarkable efforts to improve the quality of higher education.

While the ICT policy reflects early recognition of the potential of digital technologies in education, its formulation preceded the widespread adoption of contemporary blended learning models. Consequently, its provisions remain largely general and do not provide detailed operational guidance for higher education institutions on how to design, implement, and evaluate blended learning practices.

Since the adoption of the ICT Policy, CHE (2013) developed the Lesotho Higher Education Policy, which stresses the critical need for institutions of higher learning to make use of the new ICTs and embrace more versatile methods of programme delivery such as the open, distance, and e-learning (ODeL) approach. In support of this view, Nkhi et al. (2023) underline that using new ICTs in higher education is one of the overarching policy objectives. Furthermore, this initiative is accomplished by establishing an environment encouraging institutions to upgrade their ICT infrastructure to improve and support teaching and learning, research, and innovation, among other activities.

Nevertheless, compared with policy frameworks in better-resourced contexts, these policy directives in Lesotho place greater emphasis on infrastructural expansion than on pedagogical innovation and staff capacity development. As a result, institutions may

acquire technological resources without receiving sufficient guidance on how these resources should be pedagogically integrated into blended learning environments.

Recently, the Lesotho Ministry of Education and Training (2022) developed the Revised Open and Distance Learning (ODL) Draft Policy. This policy identifies online and blended learning as integral elements for the success of higher education institutions. Through the promoted online learning, the policy hopes to increase access to education in remote areas by removing barriers to face-to-face curriculum transactions. Beyond formal education, the ODL delivery method opens access to non-formal and lifelong learning, enabling demand-driven programmes on needs assessment for both working and non-working adults and youth. The policy further highlights the importance of learner support in the ODL setting: “Learner support is a critical element of any successful ODL delivery package because of the special characteristics of this learning mode. ODL learners have special needs and experience various problems related to their studies” (p.19).

This explicit recognition of learner support represents a significant policy advancement when compared to earlier frameworks. Nonetheless, the policy does not clearly specify institutional mechanisms, funding structures, or accountability systems required to operationalise learner support services. In low-resource environments, such omissions may limit the practical effectiveness of such policy intentions.

In 2024, in the concerted efforts to increase digitalisation across different sectors including education, the government of Lesotho launched the digital transformation policy. Although this initiative demonstrates strong political commitment to digital development, its broad cross-sectoral focus may dilute attention to the specific pedagogical and organisational requirements of blended learning in higher education. In contrast, countries with more mature digital education systems often develop sector-specific implementation frameworks to support institutional readiness and sustainability.

Despite these concerted efforts to improve the quality of education in Lesotho and align strategies with SDG 4, institutions have no guidelines on how they can successfully implement blended learning initiatives. This shows that although national policies demonstrate commitment to promoting online and blended learning, they have not yet translated into comprehensive institutional guidelines for effective implementation. This

misalignment highlights the need for context-specific frameworks that bridge national policy objectives with local institutional capacities.

3.9 Factors Influencing Blended Learning Implementation in Higher Education

The success of blended learning in higher education hinges on various factors, particularly those related to the key stakeholders: lecturers and students. Lecturers indeed play a pivotal role in shaping the blended learning experience. This concurs with the views expressed by Rasheed et al. (2020) that lecturers' technological proficiency, pedagogical expertise, and willingness to adapt to new teaching methodologies significantly impact the effectiveness of blended learning. Modise and Zawacki-Richte (2023) also point out that institutional support, such as professional development opportunities and adequate resources, is crucial for lecturers to embrace and effectively implement blended learning strategies.

Conversely, students provide unique factors to the blended learning setting. Their motivation, self-directed learning abilities, and digital literacy all affect their learning outcomes and level of engagement. Students must have access to technology, dependable internet connectivity, and a comfortable learning environment to engage in blended learning activities effectively. Through understanding these factors, HEIs can optimise the design and implementation of blended learning programmes to maximise student learning and satisfaction. Therefore, the subsequent section focuses on the literature on the various factors that influence the success of blended learning in higher education from the perspective of the lecturers and students.

3.9.1 Lecturers' Perceptions on Factors Influencing Blended Learning in Higher Education

The effectiveness of the blended learning model largely depends on the lecturers or facilitators (Huy et al., 2023). This implies that lecturers must be able to employ contemporary technologies to enhance their instruction, select resources that are

acceptable for various student needs and create and use evaluation strategies that are appropriate for their students' technological proficiency and aptitude. These views are consistent with the claim raised by Garrison et al. (2000) that the teachers' role in the CoI framework is to provide guidance and direction and develop content to suit the demands of the students. The factors are discussed below.

- ***Technological Preparedness***

In the blended learning model, technology is an important factor. This denotes that lecturers must be competent in using educational technologies for blended learning to be effectively implemented. In support of this position, Venkatesh et al. (2003) acknowledge that the technology competence of users motivates lecturers to implement blended learning models effectively in their institutions. Huy et al. (2023) echo that in addition to creating classes and completing other online assignments, lecturers require these abilities to help struggling students. The existing literature on blended learning further alludes to educators' technology readiness, enhancing their ability to foster social, teaching, and cognitive presences, thereby improving student engagement, and learning outcomes (Geng et al., 2019).

Likewise, Dankers et al. (2022) assert that the success of both e-learning and blended learning is closely linked to students' and lecturers' confidence and capability to engage in these learning activities. This indicates that lecturers' technological competence influences their teaching effectiveness as highlighted in the CoI framework (Cleveland-Innes, 2018; Garrison et al., 2001; Vaughan et al., 2023) and impacts students' self-efficacy and motivation. Moreover, the findings by Sefriani et al. (2021) illustrate that educators' familiarity with platforms like Edmodo can enhance student performance and comfort in a blended learning context. This suggests that when lecturers are adept at using educational technologies, they can create a more engaging and supportive learning environment, which is crucial for student success.

In South Africa, the systematic review on lecturers' readiness for online learning conducted by Modise (2024) acknowledges the importance of equipping them with the necessary digital skills for effective e-learning management. In Lesotho, the extent to

which lecturers are competent and confident in employing digital tools and how this influences students' engagement and motivation in blended learning environments remains underexplored. Addressing this gap could provide insights into the current challenges and areas for improvement to better support blended learning initiatives in higher education institutions in Lesotho.

The importance of lecturers' technological competence is further reinforced by Min and Yu (2023), who conducted a systematic review identifying critical success factors for blended learning, including the necessity for educators to be proficient in using learning management systems and other technological tools. This proficiency enhances the learning experience and ensures that educators can effectively integrate technology into their teaching practices, thereby maximising the potential benefits of blended learning. Therefore, in the context of the present study, it is vital to understand the lecturers' preparedness to integrate technology into the online component of blended learning. As previously highlighted in the literature, the technological competence of lecturers is a fundamental component for the successful implementation of blended learning, thus contributing to the appreciation of the role lecturers play in blended learning.

- ***Continuous Professional Development (CPD)***

A large and growing body of literature has investigated the role of continuous professional development (CPD) as a panacea for the success of blended learning in HEIs. For instance, in South Africa, Modise (2020) and Ramulumo (2023) stress the critical role of continuous support and professional development for educators as they integrate online and blended learning into their teaching practices. Similar opinions are expressed by Evans et al. (2019) who emphasise the significance of understanding students' demands in a BL environment by proposing that professional development should concentrate on changing teachers' technology proficiency and pedagogical approaches. Although existing research underscores the importance of professional development in supporting educators' technology integration and pedagogical changes, there is a lack of investigation into whether similar support structures exist or are effective in Lesotho, thus necessitating the present study.

Furthermore, Mohr and Shelton (2017) argue that many existing faculty development models are overly generic and fail to address the specific needs of educators teaching in online or blended formats. Tailored training programmes considering individual faculty requirements are thus crucial for effective implementation. This raises questions about whether the professional development offered to lecturers in Lesotho is adequately customised to address their challenges and requirements in a blended learning environment. Besides, the effectiveness of blended learning is closely linked to the quality of professional development provided to educators.

Apart from that, Modise and Zawacki-Richter (2023) note that online methodologies can enhance training programmes, making them more effective by incorporating diverse delivery methods that promote learning and application. This is particularly relevant in higher education, where faculty members face challenges adapting to new teaching modalities. Jarrah et al. (2021) further support this notion by asserting that developing professional competencies is vital for faculty members to engage with blended learning successfully. Integrating ongoing training and support systems fosters an environment where educators can continuously refine their skills, ultimately benefiting student learning outcomes.

The emphasis on professional development, training programmes and educators' ability to adapt to new teaching modalities reflects the need to support and enhance the instructional skills of faculty members as elaborated in the CoI framework (Vaughan et al., 2023), which is crucial for establishing an effective and engaging blended learning environment. Specifically, in Lesotho, the gap lies in the limited exploration of how diverse online methodologies can be effectively integrated into training programmes for faculty members in higher education.

- ***Institutional Support***

Several lines of evidence suggest that integrating online and blended learning strategies requires technological resources and institutional backing in terms of training and development (Modise, 2022; Modise & Molotsi, 2022). In support, Makafane and Chere-

Masupha (2021) claim that lecturers often face challenges in adopting online learning due to a lack of confidence, time, and technological literacy, which can be mitigated through institutional support such as staff development workshops and training. A similar report is provided by Modise (2023), who further emphasises the necessity for technical training to enhance lecturers' competence in using ICT tools effectively, which is essential for successful blended learning implementation. Interestingly, institutional support and training help develop the facilitation, delivery, and creation of instruction consistent with the goal of the CoI framework adopted in this study.

Moreover, research has established that aligning institutional policies with blended learning practices can significantly enhance lecturers' motivation (Olayiwola & Alimi, 2015; Khalik et al., 2019). These researchers have highlighted that institutions that actively promote blended learning through clear guidelines and resource allocation can foster a more conducive environment for lecturers to experiment with and adopt these teaching methods. These perceptions are validated by Olumorin (2023), who notes that lecturers' perceptions of blended learning are influenced by their area of specialisation and the support they receive from their institutions. One could concur that lecturers are more likely to feel motivated and prepared to transition to blended learning environments when institutions provide the necessary infrastructure and resources.

Nevertheless, there is insufficient research on implementing effective institutional support mechanisms such as staff development workshops and technical training specifically designed to address the unique challenges lecturers face in adopting online and blended learning strategies. Additionally, it remains unclear whether current training programmes, if any, are adequate in building lecturers' confidence, time management skills, and technological literacy to support successful blended learning implementation. Exploring this gap could help inform the development of more targeted and effective support systems for lecturers in higher education institutions across Lesotho.

- ***Attitudinal Factors***

Lecturers' attitudes towards blended learning are critical to the successful implementation of educational innovations, particularly in the context of the rapid shift to online education that the COVID-19 pandemic necessitated. Recently, considerable evidence has

accumulated to show that many lecturers exhibit resistance to adopting new technologies and pedagogical approaches, often rooted in personal beliefs, institutional culture, and a lack of adequate training. For instance, a study by Jarab et al. (2022) confirms that long-serving faculty members frequently resist updating their teaching methods, reflecting a broader systemic issue rather than individual reluctance. This resistance is exacerbated by competing demands on faculty time and a culture that does not prioritise teaching innovation.

Similarly, many recent studies (Conrad, 2019; Shreaves et al., 2020) reported that many instructors feel unprepared for online teaching, often relying on their traditional face-to-face teaching experiences rather than adapting to the new medium. As substantiated by Bao (2020), this lack of preparedness can lead to a diminished quality of online education as faculties may struggle to engage students effectively or utilise online tools to their full potential.

Resistance to change among lecturers can also be attributed to cognitive dissonance, where altering teaching practices is perceived as a threat to their established identities as educators. This phenomenon can create a status quo bias, making lecturers less likely to embrace new methodologies or technologies (Dana et al., 2021). The cultural context within which lecturers operate also significantly shapes their attitudes towards technology and change. Research indicates that lecturers' attitudes can vary considerably based on institutional culture, age, and disciplinary background, with younger faculty members generally more open to online teaching than their more experienced counterparts (Hanson et al., 2022). Additionally, external pressures such as national educational policies and institutional mandates can either facilitate or hinder faculty willingness to adopt new teaching practices (Gopaul et al., 2016). Given that Lesotho lecturers may share this view, the current study aims to investigate the factors contributing to the success of blended learning in higher education.

- ***Teaching Experience***

Some scholars perceive that the effectiveness of blended learning is often contingent upon the quality of the instructional design and the lecturers' ability to adapt their teaching methods to suit both online and offline contexts (Herliana et al., 2020; Huy et al., 2023).

Contrarily, researchers also have a consensus that experienced instructors are frequently better able to modify their pedagogical approaches to successfully combine in-person and virtual learning settings (Olumorin, 2023). Regardless of the method of instruction, their knowledge of different teaching strategies allows them to adapt and include students, which guarantees learning.

The study by Huy et al. (2023) shed light on the fact that lecturers who have taught for years also thoroughly understand course design, including how to organise the material and evaluate students' learning. Because of this expertise, they can develop a blended learning curriculum consistent with learning objectives and guarantee a smooth transition between virtual and in-person components. Similarly, in Lesotho higher education, there is a paucity of research on whether the teaching experience of lecturers is a critical factor in the success of blended learning. Through this study, I intend to understand the factors that lecturers believe influence the success of this model.

In addition, Maresca et al. (2014) argue that the specialisation of lecturers also impacts their ease of integrating blended learning into their curricula. This is seen when lecturers whose expertise aligns with the technological tools used in blended learning are more likely to utilise these resources effectively, enhancing student engagement and learning outcomes. For instance, instructors with relevant knowledge can use blended learning to increase student interest and academic success in fields like computer science or health education, where technology is essential. While teaching experience does not automatically imply technological proficiency, experienced lecturers open to ongoing professional development tend to integrate digital tools more confidently (Sahni, 2019; Modise, 2022).

3.9.2 Students' Perceptions of the Factors Influencing the Success of Blended Learning in Higher Education

In contrast to the conventional teaching approach, the blended learning model places the student at the centre (Suprabha & Subramonian, 2015). This is mainly because there is substantial independent learning including group activities and peer learning sessions.

Several factors that influence the students' success in blended learning are presented below.

- ***Digital Literacy and Skills***

The impact of students' digital competencies on their engagement in online or blended learning environments has been a subject of extensive research across various global contexts. According to Zhang et al. (2021), digital competencies encompass multiple skills such as information literacy, communication, and the ability to create digital content. All these are of paramount significance for effective participation in digital learning environments. Furthermore, it is agreeable among researchers that students with higher levels of digital competence tend to perform better in online learning settings as they can navigate digital platforms more effectively and engage with learning materials meaningfully (Venkatesh; Huy et al., 2023).

Similarly, Gault and Cuevas (2022) found that the flexibility offered by digital strategies in blended learning positively impacts student achievement, suggesting that students who are adept at using technology can leverage these tools to enhance their learning outcomes. The impact of digital competencies on student engagement in blended learning is further reflected in students’ attitudes towards the learning process. Research by Akbarov et al. (2018) indicates that students' perceptions of blended learning are influenced by their technological skills, affecting their readiness and willingness to participate actively. This aligns with findings from Smith and Hill (2018), who note that students value interaction and flexibility in blended learning environments facilitated by their digital competencies. As students become more comfortable with technology, they will likely engage more deeply with the learning material, leading to improved academic performance and satisfaction with the learning experience.

Moreover, the readiness of students to engage in blended learning is closely linked to their digital competencies. Tran's study highlights that students exhibit a considerable level of preparedness for blended learning, aligning with their comfort in utilising both online and traditional learning modalities (Tran, 2024). This readiness is further supported by findings from Karaaslan and Kılıç (2019), who noted that students with higher language proficiency tend to have more positive attitudes towards blended learning, indicating a

correlation between digital skills and student engagement. The ability to manage their learning independently and utilise technology effectively allows these students to thrive in a blended learning environment where self-directed learning is often emphasised.

- ***Access to Technology and Resources***

Students' academic achievement depends on having access to digital devices, a dependable internet connection, and study materials, especially given the growing use of technology in education (Modise, 2024). Apart from that, a series of papers (Saal & Graham 2019; Aivaz, 2023) suggest that the availability of digital devices significantly enhances students' learning experiences and outcomes. To exemplify, digital devices allow students to access a wide range of educational resources, such as e-books, online journals, and digital libraries, which facilitate self-directed learning and engagement beyond traditional classroom settings.

However, disparities in access to these digital resources persist (Makumane et al., 2023), often called the digital divide. This divide is not only about physical access to devices but also encompasses the quality of internet connectivity and the ability to utilise these technologies effectively. For example, studies by Morena et al. (2024) in Lesotho and Mpungose (2020) in South Africa highlighted that while many students have physical access to ICT, a significant portion faces barriers such as high data costs and poor network infrastructure which hinder their participation in online learning. Lesotho also shares these challenges as most students emanate from rural areas with limited access to internet infrastructure. This is further reinforced by a study conducted by Azionya and Nhedzi, (2021) who pointed out that students from marginalised backgrounds, predominantly low-income and rural areas, experience more significant challenges in accessing reliable internet and digital devices, adversely affecting their academic performance.

- ***Constructive Feedback and Criticism***

Enhancing the effectiveness of online learning settings requires constructive criticism and feedback. Feedback is also an area of concern in the CoI framework. The need for efficient feedback systems to promote student engagement and learning has been

highlighted by the shift to virtual classrooms, which the COVID-19 pandemic has hastened. Karakaya et al. (2020) indicate that constructive feedback not only aids in the self-regulation of learning but also enhances students' motivation and satisfaction within virtual learning contexts. In support, Westerlaken et al. (2019) and Rasheed et al. (2020) stress that students in virtual classrooms exhibit higher levels of achievement and satisfaction, which can be attributed to the collaborative environment that constructive feedback fosters.

Along similar lines, the importance of feedback is further emphasised in the context of active learning strategies such as the flipped classroom model. As previously elaborated, this model encourages immediate feedback during live virtual sessions, promoting critical thinking and a more profound synthesis of information among students (Tomesko et al., 2022). This indicates that feedback is crucial as it allows students to engage more meaningfully with the content, enhancing their overall learning experience.

Additionally, the psychological aspects of feedback in online learning environments are critical. The self-determination theory posits that feedback can enhance students' intrinsic motivation by giving them a sense of competence and autonomy (Huang et al., 2018). This is particularly relevant in the Lesotho blended learning context, where fostering a sense of agency among students can lead to improved educational outcomes. Lee et al. (2019) argue that constructive feedback validates students' efforts and guides them in their learning journey, encouraging them to take ownership of their educational experiences.

- ***Collaboration and Motivation***

Consistent with Chiu (2021) and Alsadoon et al. (2022), the flexibility of the blended learning approach motivates students by enabling them to work at their own pace, thus reducing stress associated with rigid timelines. This approach allows students to engage with course materials more effectively as they can revisit content whenever needed using various internet resources. Interestingly, the collaboration in blended learning is further

reflected in the CoI framework where Garrison et al. (2000) explicitly assert that collaboration leads to the success of blended learning, and lecturers should not neglect such. Moreover, the accessibility of the lecturer at any time fosters a supportive learning environment, encouraging students to seek clarification and additional guidance without the constraints of scheduled sessions.

These researchers (Chiu, 2021 and Alsadoon et al., 2022) further emphasise that incorporating technology into instruction enhances convenience and stimulates curiosity and a deeper engagement with learning materials, thereby increasing students' motivation to participate actively in their educational journey. Collaboration, on the other hand, has been shown to enhance student engagement and learning outcomes significantly. For instance, Dziuban et al. (2018) highlight that BL increases interaction among students and between students and teachers, creating a dynamic learning environment that promotes participation and collaboration.

Furthermore, Halverson and Graham (2019) and Min and Yu (2023) emphasise that effective collaboration through blended learning technologies can lead to improved training outcomes for students in pedagogical specialities, indicating that collaborative efforts are crucial for the success of blended learning initiatives. The importance of collaboration is further supported by the findings of Min and Yu (2023), who conducted a systematic review and identified critical success factors for blended learning. Collaborative learning was found to enhance student satisfaction and performance.

Even though academics and professionals are interested in how blended learning could boost student engagement or collaboration, there is a scarcity of studies in Lesotho to determine whether partnership enhances the effectiveness of blended learning in higher education. Therefore, the present study intends to explore the factors influencing its success in HEIs in Lesotho.

3.10 Support Services in Blended Learning in Higher Education

Besides lecturers and students, the institution plays a significant role in the success of blended learning initiatives (Amponsah et al., 2021). The following section discusses

different support services which the literature has pointed out they are significant in blended learning.

3.10.1 Pedagogical Support

Pedagogical support plays a significant role in institutions offering training and continuous professional development (CPD) for lecturers to equip them with effective blended learning strategies. Available literature attests that institutional support in the form of training is paramount as it prepares the lecturers to manage online tools effectively, leading to a conducive environment for blended learning (Ibrahim & Nat, 2019). As educational institutions shift from traditional teaching approaches to blended learning models, students and lecturers often face gaps in knowledge and skills. To address this, Vaughan (2007) accentuates that it is crucial to provide students with training and offer professional development opportunities to lecturers.

Another form of pedagogical support is instructional design assistance. With the help of instructional designers, lecturers may successfully plan and conduct blended learning initiatives, guaranteeing a smooth and pedagogically sound transition between online and in-person instruction. Evidence by Putri et al. (2020) demonstrates that to maximise learning results and engage students, blended learning experiences must be carefully designed. This aligns with the teaching presence in the CoI framework whereby lecturers are tasked with ensuring that they design appropriate instruction for the online students to collaborate effectively.

Although the literature recognises the importance of pedagogical assistance in executing blended learning successfully, there is a lack of attention to the unique contextual realities of support services in Lesotho. The reviewed studies focused on a generalised perspective without paying specific attention to the context of Lesotho's HEIs. Therefore, my study seeks to bridge this gap by examining the nature and scope of support services provided to lecturers and students in Lesotho for implementing blended learning.

3.10.2 Policy and Administrative Support

The crucial role that schools play in developing plans, strategies, policies, and resources to guarantee the effective use of blended learning models has been made clear by Garrison and Kanuka (2004). This implies that lecturers would successfully implement blended learning initiatives if suitable and relevant policies are made. Policies developed by institutions aim to motivate lecturers and provide direction and ways to adopt blended learning. For instance, scholars such as Huy et al. (2023) indicate that many institutions struggle with effectively executing blended learning due to inadequate policy frameworks and resource limitations.

In support, Thurab-Nkhosi (2018) in South Africa further highlighted the importance of policies supporting BL initiatives. The researcher argues that administrators in HEIs must actively implement BL policies to facilitate change and address the challenges educators face. In Lesotho higher education institutions, little is known about the policies or strategies for adopting blended learning except for the broad national policy on ODL, which also does not explicitly indicate how blended learning should be implemented in HEIs. Therefore, the study aims to develop guidelines or suggest strategies on how it could be adopted to ensure quality education.

Administrative support is not only limited to policies but budget allocation as well. For blended learning to be implemented successfully, adequate funding is essential. This covers expenditures for resources, training, and technology that teachers and students require. In their study, Vaughan and Garrison (2019) discuss the role of funding in supporting a collaborative environment that enhances teaching practices in blended learning. These scholars offer a perception that financial assistance in BL is vital as there are many tools and facilities to be purchased, such as laptops, and reliable internet connection for the online component of blended learning. Furthermore, the study by Abusalim et al. (2020) shows that budget allocations are essential for setting priorities for training and infrastructure, which are the cornerstones of successful blended learning. From this, institutions may find it challenging to give faculties the resources and training they require to successfully adjust to blended learning environments if adequate funding is lacking.

Another form of administrative support is implementing robust mechanisms for monitoring and evaluating blended learning initiatives. The work of Blieck et al. (2020) suggests that institutions should adopt principles of continuous quality improvement (CQI) to assess and enhance the quality of blended learning programmes. It is important to note that this approach identifies strengths and weaknesses in the implementation process, eventually enabling decision-making to improve the quality of the BL initiatives.

Another relevant study was conducted by Wallace et al. (2021), who demonstrated the importance of understanding student experiences during remote learning, which can inform evaluation processes and lead to better support structures for blended learning. These findings are crucial for creating strong support systems that meet the changing needs of blended learning. Nevertheless, there is limited focus on practical context-specific strategies for implementing these frameworks in resource-constrained environments like Lesotho.

3.10.3 Psychological and Community Support

Institutions also provide community and emotional support by establishing mentorship programmes for lecturers and students. This offers them stress management counselling and encourages community development to lessen feelings of loneliness. One such example is peer mentoring systems. Peer mentoring has significantly enhanced the learning experience in blended environments. These programmes create a sense of belonging and provide emotional and academic support that is particularly beneficial in online settings where students may feel isolated. For instance, Jaber and Kennedy (2017) emphasise that online group work can lead to profound social learning and foster a sense of identity among learners, essential for their engagement and motivation in blended learning contexts. This is also congruent with Garrison et al. (2000) on creating a social presence in the online component of blended learning. They believe the online environment should be collaborative to allow students to engage in reflective inquiry and critical thinking. This is further corroborated by the findings of Lohr and Haley (2017), who suggest that social presence nurtured through mentoring relationships significantly contributes to communication and learning in online courses.

Counselling is a vital factor in the success of blended learning. This is because the transition to blended learning can be stressful for students, necessitating effective counselling services to help students and lecturers manage this stress. Against this backdrop, institutions should provide reliable mechanisms for counselling as the migration to online teaching and learning can bring a lot of uncertainties. To begin with, Stenbom et al. (2016) cite the importance of emotional presence in online learning. This study underscores the need for counselling services that address emotional and psychological needs, enhancing the overall learning experience.

It could be argued that integrating these services not only aids in stress management but also promotes resilience among students adapting to new learning modalities. Although these studies offer insightful information, they typically concentrate on broad counselling suggestions for blended learning settings. It is necessary to investigate how counselling services might be modified in the Lesotho context to address the difficulties experienced by lecturers and students in environments with limited resources.

In blended learning environments, establishing a sense of community is essential to lowering feelings of loneliness. A positive learning experience depends on students collaborating and interacting with one another, which is made possible by effective online communities. It has been conclusively shown that establishing a learning community through teaching presence is essential for encouraging participation and a feeling of community, which fosters a sense of belonging in the virtual environment (Shea et al., 2019).

A sense of community is important because it is not merely about interaction but is integral to building a sense of belonging in the virtual environment, often lacking in online learning settings. In my view, a strong teaching presence ensures that students feel connected to their instructors and peers so that they enhance their engagement and motivation to participate actively in learning activities. Another scholar (Berry, 2019) concurs that it is vital for teachers to diversify their instructional strategies to promote a spirit of community in virtual environments.

3.10.4 Technical Support

For lecturers and students to effectively navigate technological hurdles, technical support is essential to blended learning settings (Huy et al., 2023). This support includes services such as regular system maintenance through updates and monitoring, tutorials, and instructions for using blended learning platforms, and IT helplines for troubleshooting. Because it enables users to concentrate on instructional content rather than technological issues, such infrastructure is crucial for creating an effective learning environment. For example, initiatives like help desks and support services are advised to support technology-aided instructional techniques, which can significantly improve the learning process by giving users access to information and assistance right away (Yang et al., 2022).

However, assessing how easily accessible and well-resourced this support networks are in blended learning settings is necessary, especially in places like Lesotho where financial and infrastructure limitations frequently affect higher education institutions. This disparity emphasises how crucial it is to investigate if the technical support systems currently in place satisfy the requirements of lecturers and students to adopt blended learning practices successfully.

3.11 CONCLUSION

The literature on several aspects of blended learning (BL) in the context of higher education has been thoroughly reviewed in this chapter. I started by defining blended learning by going into detail about its elements and researching studies that show its many advantages, such as flexibility and improved learning outcomes and disadvantages, like resistance to change and technological obstacles.

The chapter also explored the perspectives of both students and lecturers on the factors influencing the successful implementation of blended learning. Key issues such as technological proficiency, access to resources, pedagogical readiness, and institutional culture were examined in depth. Finally, the chapter underscored the role of institutional support systems in creating successful blended learning initiatives. Support mechanisms, which included continuous professional development for lecturers, technical support and

psychological support services, were identified as essential components for driving blended learning adoption and enhancing its outcomes.

The next chapter focuses on the methodology employed in this study. It details the research design, data collection methods and analysis techniques used in the present study.

CHAPTER 4

RESEARCH METHODOLOGY

"The research method is simply the logic of inquiry; it is the way scholars go about answering questions." John W. Creswell

4.0 INTRODUCTION

The preceding chapter laid a foundation for this chapter by focusing on the review of current and related literature. Building upon these theoretical insights, this chapter elaborates on the research design and methodology used. As already articulated in Chapter 1, this chapter further explains in detail how data were collected and analysed to address the research questions. Figure 4.1 below presents a comprehensive structure of the methodology chapter.

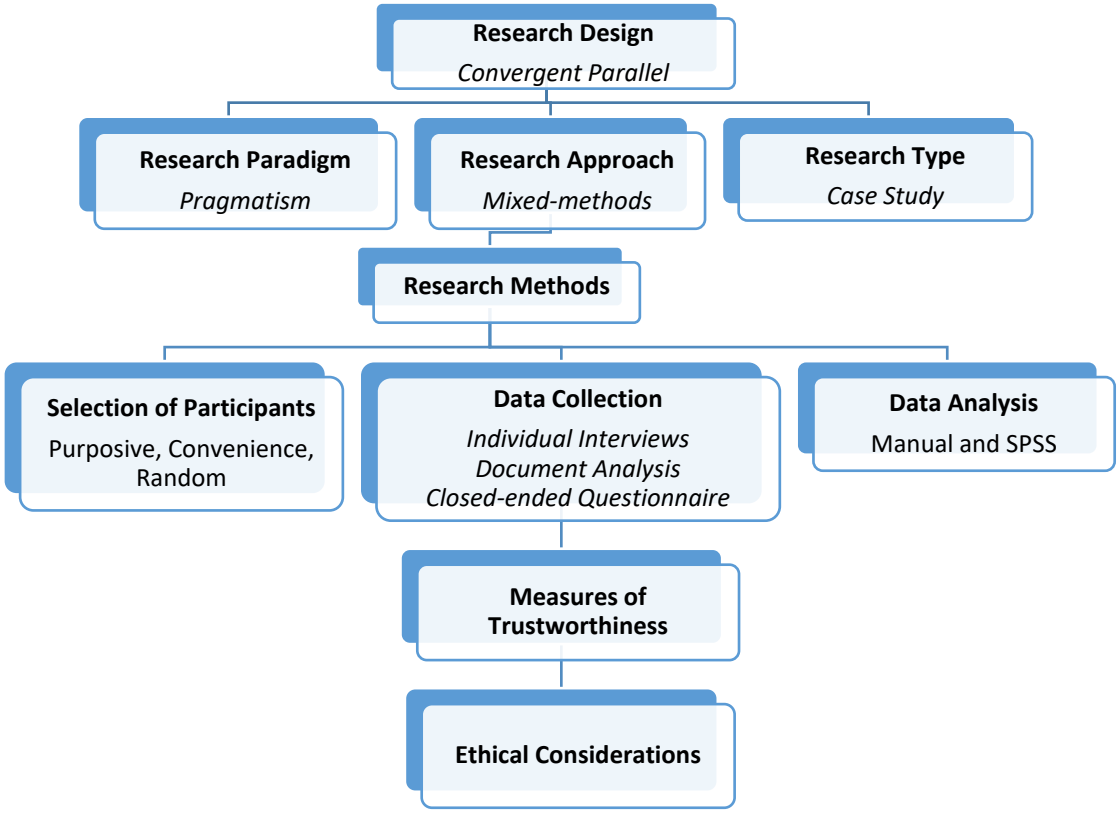


Figure 4.1: A diagrammatic Overview of Methodology Chapter

4.1 RATIONALE FOR EMPIRICAL INQUIRY

As blended learning continues to gain traction globally, there is a need to understand how it functions within specific socio-economic and educational contexts. As discussed in Chapters 1 and 3, Lesotho, being a developing country with unique infrastructural and pedagogical challenges, requires context-specific data to inform meaningful and sustainable integration of blended learning strategies (Garrison et al., 2000). Empirical evidence is thus critical in identifying what is working, what is not, and why, which significantly contributes to the body of knowledge in education technology within under-researched contexts**.**

Through the review of relevant literature in Chapters 1 and 3, it was highlighted that Lesotho, and many similar Sub-Saharan African countries, have a notable scarcity of empirical studies that examine how blended learning is being conceptualised, implemented, and experienced by key stakeholders such as students and lecturers. What is worth mentioning is that much of the existing literature in the region focuses on policy intentions or theoretical frameworks without sufficient investigation into how these are enacted in practice (Moloi et al., 2020). This gap, undoubtedly, necessitates an empirical inquiry to ground discussions of blended learning in actual data from the lived realities of educators and students in Lesotho. For these reasons, lecturers, and students in HEIs in Lesotho were selected to generate data for the current study.

While studies in Chapter 3 of this thesis have shown that blended learning offers flexible and cost-effective pathways to quality education (Graham, 2013; Boelens et al., 2017), these benefits cannot be assumed to automatically manifest in contexts where digital literacy, infrastructure, and institutional support may be lacking. Lesotho, with its rural digital divide, intermittent electricity supply, and limited teacher training in online pedagogies, presents a unique environment that requires localised, evidence-based research. Without empirical data, it becomes difficult to assess whether blended learning truly meets the needs of learners and educators or whether it risks reproducing existing educational inequalities (UNESCO, 2021).

Furthermore, as mentioned in Chapter 2 of this study, existing regional and international frameworks such as the Community of Inquiry (CoI) emphasise elements like social presence, cognitive presence, and teaching presence as crucial for meaningful learning in blended environments (Garrison et al., 2000). Yet, there is little empirical work in Lesotho examining how these constructs materialise in practice. Do students feel socially present in online spaces? Do lecturers possess the skills and support needed to create cognitive engagement? Do lecturers have the necessary instructional design skills for effective online learning? These are not merely theoretical questions but require first-hand data to answer, especially if national policy is to be informed by realities on the ground rather than assumptions. Therefore, the present study through the administration of CoI survey to the students, unpacked the realities of the students towards the implementation of blended learning in the classrooms.

Beyond addressing literature gaps and context-specific challenges, empirical inquiry in this study is also justified by the need to evaluate institutional readiness and capacity for sustainable blended learning implementation. Research in other developing contexts has indicated that without adequate investment in digital infrastructure, pedagogical innovation, and continuous professional development, blended learning initiatives may fail to achieve long-term impact (Tadesse & Muluye, 2020). Lesotho's higher education institutions vary widely in terms of resource availability and ICT integration. Thus, collecting empirical data enables a critical assessment of institutional capabilities, which helps in identifying systemic enablers and barriers.

This empirical research helped to answer the research question: *What is the possibility of implementing successful blended learning in higher education institutions in Lesotho?* The following sub-questions, as shown in Chapter 1 (Section 1.8.1), support the main question:

- What is the nature of blended learning in higher education institutions in Lesotho?
- How do lecturers perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?

- How do students perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?
- Which best practices for learner support in blended learning are required within Lesotho's higher education institutions?
- Which comprehensive guidelines can be developed to assist lecturers in facilitating the effective implementation of blended learning in higher education institutions in Lesotho?

In sum, the rationale for conducting empirical research on blended learning in Lesotho lies in addressing the current knowledge gap, testing the applicability of international models in a local context, and generating context-sensitive evidence to guide the future of higher education in the country. Given the increasing pressure on institutions to digitise, post-COVID-19, this study arrives at a critical juncture where strategic, data-driven decisions are urgently needed. Without empirical inquiry, such decisions risk being misaligned with the needs, capacities, and lived experiences of those directly involved in the learning process. The next section discusses the research design employed in this study.

4.2 RESEARCH DESIGN

A research design, according to Creswell and Creswell (2018), is the general framework or process for a planned study that necessitates the collection and analysis of data. It is through the research design where the overall steps for conducting the study are articulated. This includes how the data are collected, analysed, and interpreted in relation to the research questions. As elucidated in Chapter 1, the study adopted a convergent parallel mixed-methods research design (Creswell and Creswell, 2023) distinguished by, among others, concurrently collecting qualitative and quantitative data and merging the results to find similarities and differences in the data sets (Figure 4.2). For example, in this study, I employed interviews and document analysis for qualitative data sets that were analysed concurrently but separately from the questionnaire for the quantitative data sets. The results were merged to see areas of convergence, divergence, or mutual support.

As articulated by Creswell and Plano Clark (2018), this design allows researchers to gain comprehensive insights into complex research questions by triangulating findings from distinct data types. It has further been noted by these scholars that the rationale for employing convergent parallel design lies in its one-phase approach, where both qualitative and quantitative data are weighed equally, analysed independently, and then integrated to provide a more thorough understanding of the research problem. This design allowed me to explore not only the general patterns and trends regarding the implementation of blended learning in HEIs but also to explore the lived experiences and perceptions of lecturers.

Furthermore, the convergent parallel design supported the study's goal of informing policy and practice by producing findings that are both statistically reliable and contextually meaningful. The integration of quantitative and qualitative results enabled me to draw conclusions that reflect the diverse realities within higher education institutions. This alignment between data types increased the study's credibility and provided actionable recommendations for improving the implementation of blended learning in Lesotho. This section outlines the pertinent research design, type, and strategy, along with the paradigm and procedures that shaped the data collection and synthesis used in this study.

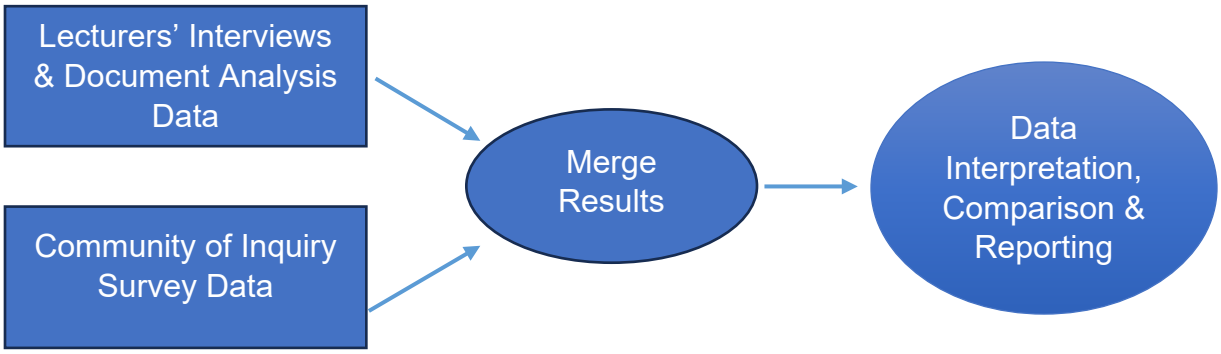


Figure 4.2: An illustration of the flow of Convergent Parallel Design (adapted from Creswell and Creswell, 2023, p.259)

4.2.1 Research paradigm

The term research paradigm is defined as a philosophical framework that guides the researcher in their empirical inquiry by shaping how they understand and approach the

research questions (Kurunja & Kuyini, 2017). The available literature further points out that, specifically, paradigms embody underlying assumptions regarding the nature of reality (ontology), the nature of knowledge (epistemology), and the methods deemed appropriate for investigating phenomena (methodology) (Rahi, 2017; Park et al., 2020). In the field of knowledge, there are various paradigms such as positivism, constructivism, interpretivism and pragmatism among others. However, the nature of this study, which focused on the possibilities of blended learning in HEIs in Lesotho, was consistent with the pragmatism philosophical lens which allowed the researcher to formulate questions that can adapt to the complexities of real-world scenarios without being confined to the limitations of a single methodological stance.

The ontological perspective of the pragmatism paradigm recognises the existence of reality that is both independent of human perceptions (realism) and constructed by human experiences and interactions (constructivism) (Kurunja & Kuyini, 2017). In this context, it is fair to articulate that pragmatists believe reality is shaped by the experiences of the people within their different social contexts, thus supporting the idea that different individuals may perceive reality in varied ways due to their backgrounds and circumstances. One indispensable element within the pragmatism philosophical perspective is that it supports research that accounts for both objective and subjective realities, engaging with real-life issues that require contextual understanding (Kaushik & Walsh, 2019).

This ontology therefore suggests that this paradigm allows for the combination of qualitative and quantitative data sets to answer the research questions. It is based on this perspective that the present research emphasised empirical investigation and experimentation to determine the possibilities of blended learning in HEIs based on the findings from the students and lecturers. This ontology assisted the study to get a holistic view on the factors influencing the success of blended learning through the experiences of the lecturers and the students.

According to Martela (2015) and Kaushik and Walsh (2019), the epistemological perspective of pragmatism adopts a fallibilistic epistemology that values knowledge as provisional, continually shaped by experience and inquiry, emphasising the practical

consequences of ideas and their applications. This implies that pragmatism is a way of thinking that believes we can never be 100% sure about what we know and that our knowledge can always change. It sees knowledge as something we build through experience and asking questions. What matters most is whether our ideas work well in real life and help solve problems.

Martela (2015) adds that pragmatism does not fit neatly into the dualism of positivism and constructivism; rather, it presents a unique perspective where knowledge emerges from active engagement with the world. One can therefore conclude that this perspective aligns with John Dewey's (1978) philosophy which merges aspects of epistemology and ontology, suggesting that our understanding is a product of our interactions with the world, thus termed 'epistemontology' by some scholars.

Additionally, in the context of this study, to create knowledge, it was important that I interacted with the participants of the study; lecturers and students. The experiences of the lecturers contributed to the understanding of the factors influencing the success of blended learning as well as understanding the student support services provided by various HEIs in Lesotho. Also, through using the COI survey to collect quantitative data, students' factors influencing the success of blended learning were gathered.

Methodologically, rather than strictly following one method or research style, pragmatism encourages the use of mixed methods choosing whatever approach best fits the research question. Congruent with Kelly and Cordeiro (2020), pragmatism facilitates the production of actionable knowledge by blending quantitative and qualitative methods to ensure that research is contextually relevant. Moreover, the methodological pluralism implicit in pragmatism allows for greater flexibility in research design, which helps in accommodating diverse inquiries. Pragmatists recognise that qualitative and quantitative methods each have their own strengths and limitations, and that combining them can lead to a more comprehensive understanding of the research issue (Flick, 2020).

This study enjoyed the combination of qualitative and quantitative methods to understand the possibilities of blended learning in HEIs in Lesotho. For qualitative data collection, I used interviews to gather experiences of lecturers regarding blended learning. The systematic review was also used to understand the nature of blended learning as

implemented in HEIs globally. For quantitative data, I adapted the CoI survey and administered it to the students engaged in blended learning in the three selected HEIs in Lesotho. The results from the lecturers and students were compared and conclusions reached.

Axiology, which is the philosophical study of values and ethics, is very important as it plays a role by informing how values influence the research process and outcome. Deane (2018) defines axiology as what is considered good or bad in life and, most importantly, what makes a good researcher. To ensure that the values of the participants were not overshadowed by my own beliefs as a researcher, I practised reflexivity by continually reflecting on my own beliefs and potential biases throughout the research process. Again, I engaged participants ethically, ensuring informed consent and clearly communicating the purpose and use of the research. In some instances, I used participatory methods that prioritise participants' voices and allowed them to contribute to shaping the study. Additionally, I was transparent about my positionality and sought feedback from the participants to ensure their perspectives were accurately represented and respected. The next section discusses the research approach employed in the study.

4.2.2 Research approach

Creswell (2022) has identified three approaches in research: qualitative, quantitative, and mixed methods. The current study found it befitting to employ the mixed-methods approach to explore the possibilities of blended learning in HEIs in Lesotho. This is mainly driven by the fact that pragmatists believe in blending qualitative and quantitative data to explore the given phenomenon to solve the problem of the scope and the depth of the study. The definitions provided by Creswell (2012) and Rakotsoane (2019) indicate that in the mixed-methods research there are two types of methods which yield the qualitative and the quantitative data sets.

Another justification for using mixed methods in this study lies in its potential to provide multiple ways of solving a problem. Blended learning approach is not widely researched in the context of Lesotho; therefore, I found it imperative to use the mixed-methods approach. In addition, as authenticated by Creswell and Creswell (2023), mixed methods

are employed to allow for a comprehensive comparison between the outcomes of quantitative and qualitative research. Through integrating both approaches, I was able to assess whether the findings from statistical analysis align with insights drawn from participant experiences or observations, thus enhancing the credibility and depth of the study.

In some cases, qualitative data are used to shed light on quantitative results. For instance, if survey data reveal a trend or unexpected result, interviews or focus groups can help explain the underlying reasons. This explanatory approach strengthens the interpretation of quantitative outcomes by adding context and meaning. Mixed methods can also serve an exploratory purpose, where qualitative research is first conducted to investigate a phenomenon in detail. The insights gained can then inform a larger-scale quantitative study, enabling broader generalisation (Creswell, 2022). For the current study, however, the convergent parallel mixed-methods design was used where the qualitative and quantitative data were concurrently and merged to interpret the results.

Moreover, the rationale for mixed methods is anchored in its inherent capacity to yield richer and more contextualised findings. Ivankova et al. (2018) emphasise that by incorporating qualitative data, researchers can unearth deeper insights that quantitative data alone may overlook which leads to a more holistic understanding of the phenomena under study. In the context of this study, the qualitative data was generated from lecturers through in-depth interviews. A document analysis was further conducted to build upon the literature reviewed. Concurrently, and to gain better insights, the study generated quantitative data to reach conclusions. Finally, there was triangulation of students' numeric data generated from the CoI survey instrument with the lecturers' insights from the interviews conducted.

4.2.3 Research type/strategy

There are several research designs applied to assist researchers in answering research questions (Figure 4.3). Among such designs there is grounded theory, experiment, survey, ethnography, action research, and narrative inquiry (Saunders et al., 2019, as cited in Modise, 2022). When answering the research questions for the present study,

such designs were considered. However, it is important to note that although these designs provide crucial information in certain situations, they were found to have significant drawbacks for this study. For example, survey approaches – while helpful for collecting general data – frequently lack the depth required to comprehend complex phenomena like blended learning in context, whereas experimental designs necessitate controlled environments that are impractical in natural educational settings. On the other hand, Modise (2022) argues that ethnographic designs necessitate extended fieldwork which may not be feasible given the study's time and resource limitations.

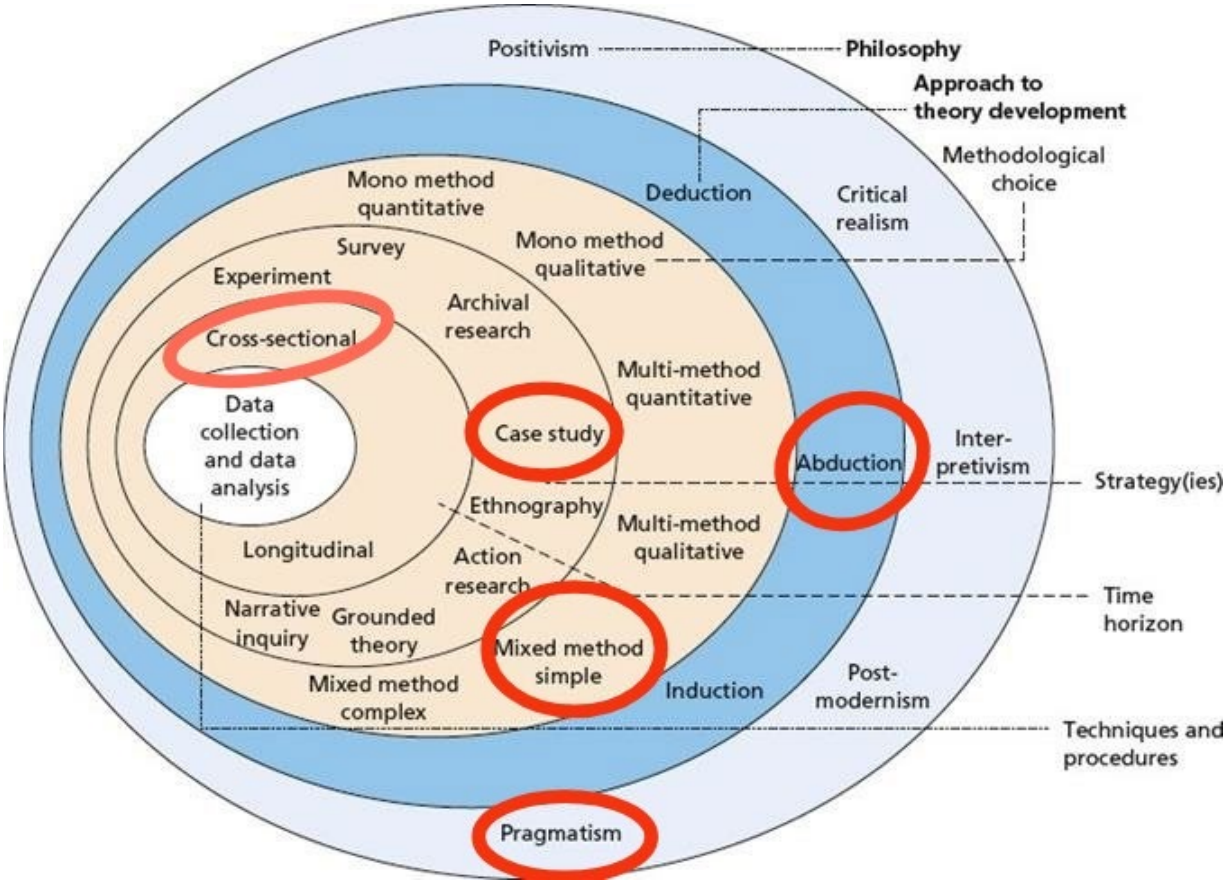


Figure 4.3: Research Onion (Saunders et al., 2019)

Figure 4.3 gives a conceptual framework that provides a roadmap of the entire research journey from the beginning to the finished product. This framework, as proposed by Saunders et al. (2019), is referred to as the ‘research onion’. The red circles summarise my research journey in this thesis.

Narrative inquiry and action research were also not suitable for the current study. Narrative inquiry, for example, is mainly concerned with exploring personal stories and experiences of individuals over time which limits the ability to compare institutional practices or understand broader patterns across multiple settings (Weiss & Johnson-Koenke, 2023). Despite its advantage of giving individual experiences, it was not considered on the grounds that there would be no institutional-level analysis needed for my study on blended learning in HEIs. Likewise, action research which is more practical in situations where an intervention is mostly needed was not suitable for this study.

Given these limitations, the case study research design was selected as the most suitable approach. As defined in Chapter 1 (Section 1.12), case study research is an approach that allows for an in-depth exploration of specific phenomena within their real-life contexts (Creswell, 2015). It stands out as a unique methodological approach that facilitates a comprehensive understanding of complex issues by focusing on a limited number of cases which may include individuals, groups, organisations, or events. This is also consistent with Flick (2020) who asserts that case study comprehensively examines a phenomenon, place, group, or organisation.

While Yin (2012) categorised case studies into explanatory, exploratory, single, and multiple case studies, Stake (1995) viewed case studies as being intrinsic, instrumental, and collective. The present study, however, benefited immensely on the multiple case study design as it allowed me to explore differences between and within the three cases selected in Lesotho. As supported by Leedy and Ormrod (2015), multiple case studies facilitate a comprehensive exploration of diverse contexts, which enhances the validity of the findings through comparative analysis across various cases. As a result, there was comparison of results from the three cases.

Another reason that prompted me to use case study was that each of the three selected higher education institutions in Lesotho operated uniquely from others, hence the experiences of lecturers and students in each institution would be different. This therefore allowed me to compare how blended learning is applied, along with exploring the factors that influence its success. In addition, one significant reason for selecting a multiple case study design is its ability to derive richer insights and more varied information (Yin, 2012).

For instance, instead of focusing on one institution which might not provide the full picture of how blended learning is practised, I used three cases to have a deeper understanding of the topic from different angles.

In conclusion, multiple case study added value in this study as it allowed to compare how blended learning is practised in HEIs in Lesotho. As a result, the findings were more comprehensive and applicable and that made it easier to suggest practical recommendations for improving blended learning practices across various educational contexts. The next section discusses how data were collected and analysed

4.3 RESEARCH METHODS

4.3.1 Research Context

The study was conducted in three higher education institutions (HEIs) in Lesotho. Among the three selected HEIs, one is a private university and the remaining two are public institutions. They are all given accreditation by the Council on Higher Education (CHE) in Lesotho. They are all located in the capital city – Maseru. These selected institutions differ greatly in student enrolments, the number of lecturers and the resource capacity. They were purposefully selected to reflect the diversity of higher education in Lesotho and to provide a broad view of how blended learning is understood, implemented, and experienced across different educational settings. The focus was limited to undergraduate teaching and learning activities involving lecturers and registered undergraduate students who were actively engaged in blended learning. Administrative staff, policymakers, and postgraduate programmes were excluded to maintain a clear focus on instructional and learner experiences.

One crucial aspect to note is that even in relation to technology integration in their programmes, the institutions are in different stages of adopting technology-enhanced teaching and learning which includes blended learning. For example, while some institutions have begun to adopt learning management systems (LMS) and digital platforms such as Moodle, Google Classroom, or Zoom, others still face significant

challenges related to digital infrastructure, internet access, staff training, and student readiness.

As previously noted, the government of Lesotho, through the Ministry of Education and Training, has increasingly emphasised the integration of digital technologies in education as part of its national development goals, especially in response to disruptions caused by the COVID-19 pandemic. As stated in Chapter 3, the government – through its ODeL policy – mandates that to meet the growing demands of the 21st century, institutions are obliged to migrate from the traditional way of teaching to the modern or technology-enriched teaching and learning. In line with this perspective, the study explored the perspectives of both lecturers and students within these institutions to gain a deeper understanding of the factors influencing the implementation and effectiveness of blended learning. This context was crucial for understanding how institutional culture, infrastructure and policy environments shape the adoption of blended learning in Lesotho's higher education landscape.

4.3.1 Selection of participants

Before selecting the sample and collecting the data, I did reflexive bracketing. As defined by Mafenya (2016), bracketing in research is a process where the researcher deliberately sets aside their own beliefs, experiences, and assumptions to avoid influencing the study. It is used in many studies to ensure that the experiences of the researcher are not reflected in the findings of the study. Apart from that, bracketing helps to maintain objectivity and ensures that the findings are based on what the participants say or do. Therefore, this was done through peer debriefing and member checking where I shared the findings with the participants to confirm accuracy.

Mafenya (2016) expounds that in the mixed-methods approach, the researcher should take cognizant of the two main components of sampling designs: sampling scheme and sample size. Moreover, scholars have widely researched on the sampling methods and concluded that there are two primary methods used by researchers (Cohen et al., 2018). These sampling methods are probability sampling and non-probability sampling. In probability sampling, points of study are selected through randomisation. As a way of

giving evidence, Yang et al. (2020) indicate that every individual has a known, non-zero chance of being selected for data collection. Various types of probability sampling include simple random sampling, stratified sampling, and systematic sampling.

On the other hand, non-probability sampling involves methods where not all individuals have a chance of being included and the selection is often based on subjective judgement rather than random selection. This method includes techniques such as convenience sampling, purposive sampling, and snowball sampling (Rakotsoane, 2019). The present study, utilising both qualitative and quantitative data, employed both sampling techniques.

For the qualitative data, the non-probability sampling was employed to select points of study. Purposive sampling and convenience sampling were used to select the lecturers, HEIs and the documents for data analysis. By purposive sampling, Creswell and Creswell (2018) expound that it is the deliberate choice of participants in the study due to the attributes they possess. Purposive sampling was suitable for the qualitative phase since it seeks to identify and select points of study that are well-informed about the phenomenon of interest (Cohen et al., 2007; Kaur, 2017). In alignment with the articulated description of purposive sampling, I selected lecturers who were involved in blended learning programmes to explore their experiences and establish if the findings could be replicated. The lecturers who were easily accessible and willing to participate in the study were sampled. For site sampling, the three HEIs were purposively selected on the basis that they offer blended learning programmes.

Similarly, I employed convenience sampling, which is a type of non-probability sampling method, meaning that the participants are selected based on their availability and accessibility (Kaur, 2017). In line with Yang et al. (2020), convenience sampling selects individuals based on their availability and willingness to participate, which can be seen in qualitative research where capturing the experience of populations is prioritised. In accordance with Flick (2020), this type of sampling is often used when the researcher does not have access to a complete list of potential participants. In situations where purposive sampling was inefficient, especially when the informants identified were no longer present, I resorted to convenience sampling but still considering the inclusion criteria presented below.

- Lecturers were expected to be offering some courses through blended learning or fully online mode and or have experience in blended learning.
- Further, they had to be willing to engage in the interview process.
- Students who took part in the study were to be registered students in the selected HEIs and to have some modules/courses offered through blended learning.

This inclusion criteria were vital because it was through it that I was able to find a group of participants for whom the problem and research objectives had personal significance and relevance.

In the quantitative stage, probability sampling was deemed appropriate to ensure the findings were representative of the broader population. Probability sampling, as defined by Creswell and Creswell (2018), is a sampling method where all members have an equal chance of being selected to participate in the study. This was achieved through simple random sampling, involving the selection of participants at random from the population (Flick, 2020). A sample size of 152 students enrolled in blended learning mode in the three universities was chosen to collect quantitative data. This sample size was selected due to blended learning being a relatively new mode of learning that is not widely offered in most tertiary institutions in Lesotho.

In qualitative study, data collection continued until thematic saturation was achieved. After approximately 10 interviews, recurring patterns and similar responses began to emerge, with no substantially new themes being identified. Additional interviews were conducted to confirm the stability of the emerging categories. At this stage, further data collection was deemed unnecessary, as the data were sufficient to address the research objectives.

4.3.2 Data Generation

In the previous sections, I indicated that this study employed a convergent parallel mixed-methods design. By virtue of being a mixed-methods study, I generated the qualitative data from the lecturers through semi–structured interviews and analysed the blended learning documents from the selected HEIs. Concurrently, I distributed a CoI survey instrument to the students involved in blended learning to generate the quantitative data.

4.3.2.1 Pilot Study

Before launching a full-scale study, I conducted a pilot study to ensure that the research questions and objectives reflected the fundamental purpose of the study. Pilot study is defined by Lawson et al. (2021) as a small-scale preliminary investigation conducted before the main study. Its primary purpose is to test the feasibility, time, cost, risk, and potential adverse effects of the planned study design. Chan (2019) indicates that through the essential feedback provided by the research informants, the researcher can refine the methodology used in the study. In the same tandem, Eldridge et al. (2016) assert that these preliminary investigations significantly contribute to methodological developments and the prevention of methodological flaws.

For this research, I used the pilot study to test the feasibility of the interview schedule as well as the CoI instrument. The instruments were piloted with a small population which was not part of the sample selected for the current study. However, it should be noted that they still had similar characteristics to the population of the study. To be exact, I selected three lecturers for semi-structured interviews and 20 students to respond to the questionnaire. The participants were informed that this was test run to evaluate the feasibility, design, and methodology of the planned research. I requested the participants to help reshape my instruments by looking at the following:

- Clarity of questions – were the questions clear, easy to understand and free from confusion?
- Relevance of the questions – did the questions align with the main purpose of the study?
- Length and time taken – was the questionnaire/interview too long or manageable within reasonable time?
- Wording and phrasing – were there some terms used that were confusing, too technical, or emotionally sensitive?
- Suggestions for improvement – did the participants have any suggestions to improve the structure, wording, or flow?

Informed by the feedback from the informants, I refined my interview schedule. It initially consisted of 12 questions, but after the refinement only nine remained. This was done because participants indicated that some questions were repetitive in nature hence, I had to remove them. In some situations, the participants highlighted that some questions were too long and would cause confusion, as a result, this assisted me to further revise the wording and the length of the research questions. Again, for the feedback gathered from the questionnaire piloted to the students, I was able to reshape the questionnaire to fit the purpose of the study. The CoI instrument was adapted to fit the context of Lesotho where the study was carried out.

4.3.2.2 Semi-structured Interviews

Semi-structured interviews are some of the most widely used qualitative data collecting techniques because of their flexibility and adaptive structures. Selialia (2024) defines semi-structured interviews as in-depth interviews where the participants must answer pre-set open-ended questions. Along similar lines, Kurata (2024) expounds that in semi-structured interviews, there is a set of open-ended questions that are predetermined to thoroughly explore the concept under investigation. The nature of these interviews allows for probing, thus ensuring generation of rich data.

Despite the current study adopting semi-structured interviews to collect the qualitative data from lecturers, it comes with some challenges. Firstly, Quintela Do Carmo et al. (2024) posit that analysing data collected from interviews is quite a strenuous activity that requires a skilled researcher to identify patterns and themes accurately. Besides being time-consuming, the researcher's verbal and non-verbal cues can inadvertently bias participants' responses, which has the potential to affect the reliability of a study.

However, comparatively with qualitative data collection methods such as closed-ended interviews, focus group discussions and observations, the current study found it convenient and befitting to use semi-structured interviews because of their numerous benefits. As emphasised my Modise (2022), interviews have high levels of reliability because of the anonymity of participants, thus encouraging honesty. The fact that interviews can also be electronically conducted suggests that they are cost-effective as the researcher can conduct them at their convenience and this reduces the travelling

costs and lodging especially if participants are distant. Interview data can be collected through various methods depending on the context, resources, and participants' accessibility.

Traditionally, semi-structured interviews are conducted face-to-face, allowing for richer interaction through observation of non-verbal cues such as facial expressions and body language. Contrarily, with advancements in technology and the increasing need for flexibility, researchers now commonly use virtual platforms such as Zoom, Microsoft Teams, or Google Meet to conduct interviews remotely. This study conducted interviews virtually with the lecturers to minimise costs – as the study was fully financed by the researcher without any external bursary and support – and to allow for the flexibility of participants to reschedule times that were convenient to them.

Another crucial aspect that prompted me to utilise the semi–structured interviews was that they provided a platform to probe participants to avoid irrelevant information being provided. As observed by Roulston and Choi (2018) and Kurata (2024), probing is important in interviews because it helps the interviewer gain deeper, clearer, and more detailed responses from participants. In addition, it encourages them to elaborate on their initial answers, clarify ambiguities and reveal underlying thoughts or feelings that might not surface through initial questioning. This therefore enhances the richness and quality of data collected.

In-depth interviews are also appropriate as participants share their thoughts and pour out their emotions, thus their lived experiences (Selialia, 2024). Showkat and Parveen (2017) add that the role of interviews is to elicit responses in relation to the experiences, unfolding opinions and values of the population of the study. This study, which was aimed at exploring the experiences of the lecturers involved in blended learning, profited tremendously as the lecturers shared their thoughts and ideas on the investigated topic.

As previously mentioned, the interviews were virtually conducted. As a result, I was able to do a recording of the interview process which was later used for transcription. To protect the participants of the study, pseudonyms were used. Also, some participants opted for audio conferencing where they could not reveal their faces.

The Interview Instrument

The semis-structured interview schedule administered to the 12 selected lecturers from three HEIs in Lesotho consisted of 9 questions. After extensive reading of the literature and with insights from the theoretical framework as well as the pilot study, the interview questions were framed in such a way that they addressed the research questions of the study (Annexure 1). These open-ended questions were designed to gather information on the possibilities of blended learning in HEIs in Lesotho. Besides the nine questions provided, the other section of the schedule comprised of the background information of the participants such as their level of qualification, gender, whether employed at a private or public institution, years of teaching experience in blended learning, and the level of the students taught among others.

4.3.2.3 Document Analysis

One of the common qualitative methods used by researchers is document analysis. Bowen (2009) and Morgan (2022) define document analysis as a research method that involves a systematic evaluation of documents to gather insights and develop empirical knowledge. It is particularly useful in educational research for exploring patterns, meanings, and themes embedded within written or recorded materials (Bowen, 2009).

Through document analysis, Morgan (2022) concurs that the researcher could uncover both the implicit and explicit attitudes, assumptions and frameworks related to the phenomenon under scrutiny. Before selecting documents to analyse, Kurata (2024) warns that they should be relevant and assessed to evaluate their authenticity and credibility to help answer the research questions precisely.

One of the reasons for choosing documents is that they add rigour to qualitative research methodologies through ensuring comprehensive data collection and analysis. By systematically reviewing documentation related to blended learning, I was able to corroborate findings with existing literature and identify gaps in knowledge. This triangulation of data strengthened the conclusions of this study, which led to more robust insights and actionable recommendations (Cardno, 2019). Cardno further elaborates that document analysis is especially valuable in educational studies where official records,

strategic plans, and policy documents reflect the intentions, priorities, and actions of institutions. The selected documents therefore allowed me to gather rich and existing data on the status of blended learning in HEIs in Lesotho.

Moreover, Corbin and Strauss (2015) claim that document analysis enables the researcher to compare stated intentions with actual practices. For example, an institution may include blended learning in its strategic goals but lack a corresponding teaching and learning policy that supports it. Through this method, contradictions, gaps, and alignment between policy and practice can be identified. This helps in building a grounded argument about the feasibility and effectiveness of blended learning within a specific institutional and national context such as that of Lesotho. As such, document analysis not only strengthens the evidence base of a study but also contributes to informed recommendations for policy and practice improvement. In the context of this study, the national-level and institutional-level documents were analysed (Table 4.1).

Table 4.1: Selected documents

National-Level Documents	**Institutional-Level Documents**
National Digital Transformation Policy (2024)	Teaching and Learning Policies
CHE Higher Education Policy (2013)	
Lesotho Open and Distance Learning Draft Policy (2022)	
Higher Education Strategic Plan (2013 - 2018)	

4.3.3.4 Questionnaire

I used a questionnaire with 152 students involved in blended learning in the three selected HEIs in Lesotho to collect quantitative data for triangulation. Creswell and Creswell (2023) illustrate that a questionnaire is vital as it could gather data from a large sample. Again, due to surveys providing anonymity and privacy, Bryman (2021) argues that they provide more honest and accurate responses. Based on these arguments, I found a questionnaire

suitable to explore the students' experiences in relation to the constructs of the CoI framework in blended learning.

In this study, I adapted the CoI survey instrument to seek students' degrees of negativity and positivity in each statement provided. Prior to administration, minor modifications were made to the wording of certain items to suit the specific institutional and cultural context while maintaining the integrity of the original constructs. Developed by Garrison et al. (2000), the CoI framework comprises of three indispensable and interrelated presences: social, cognitive, and teaching presence. These presences were adapted to assess students' perceptions of the cognitive presence, social presence, and teaching presence within a blended learning environment.

As discussed in Chapter 2, this survey instrument has been validated and applied widely to assess how online learning is effectively integrated in different institutions globally (Garrison et al., 2010; Garrison & Cleveland-Innes et al., 2010; Yu & Richardson, 2015; Zimmerman & Nimon, 2017; Nasir et al., 2018). It should be noted that validated instruments have undergone rigorous testing for accuracy and effectiveness, which reduces the likelihood of measurement errors but enhances the comparability of results across different studies and contexts (Arbaugh et al., 2008). Due to having high reliability and validity, I also found it convenient to use the survey instrument in the context of Lesotho to test the students' attitude towards blended learning.

Generally, the CoI survey consists of 34 items rated on a 5-point Likert scale (strongly agree, agree, neutral, disagree and strongly disagree) (Annexure 2). The teaching presence comprises of 13 items covering design and organisation, facilitation, and direct instruction (Aderson et al., 2001; Arbaugh & Hwang, 2006). The cognitive presence measuring the four levels of practical inquiry (triggering event, exploration, integration, and resolution) entailed 12 items. Lastly, the social presence which measured students' ability to collaborate and communicate effectively in blended learning contexts comprised of 9 items.

Surveys can be administered through multiple platforms such as online, face-to-face, and paper-based methods. These methods increase their accessibility and flexibility. In this study, the questionnaire was administered electronically to the students via google forms.

The instrument's internal consistency was confirmed through Cronbach's alpha values calculated post-administration with reliability coefficients for each CoI construct reported accordingly.

4.3.2.5 The process of inviting the participants

After selecting participants for the research interviews and questionnaires, lecturers were formally invited to take part in the study through email (Annexure 3). Each email included a participant information sheet explaining the purpose of the study, ethical clearance certificate (Annexure 4) the estimated duration of the interview, and a consent form to review and sign (Annexure 6). The lecturers' email addresses were gathered following ethical guidelines approved by the relevant institutional review bodies. A week after the initial email, reminder messages were sent to those who had not yet responded. This approach was applied consistently in both the pilot phase and the main study.

Once lecturers had confirmed their participation and submitted signed consent forms, interview sessions were scheduled electronically. Most of the interviews were conducted via Zoom and Google Meet based on the participant's preference. Although face-to-face interviews were initially considered, challenges related to logistics and ethical concerns compelled me to opt for virtual interviews for convenience and safety.

For the questionnaire component, students were contacted through institutional platforms such as Google Classroom, LMS and email when available. These messages included the same detailed participant information sheet, the study's purpose, ethical considerations, estimated completion time, and the consent form. Students were requested to read the information and complete the questionnaire online. A smaller group of students was initially invited to pilot the questionnaire to assess its clarity, length, and structure. Feedback from this group was used to improve the final version before it was sent out to the full sample of participants. Reminder emails were also sent to students who had not responded to encourage participation.

4.4 DATA ANALYSIS

To analyse the qualitative data obtained from the policy documents and semi-structured interviews with lecturers, thematic analysis (TA) was employed following the six-phase framework proposed by Braun and Clarke (2019). This method was chosen for its flexibility, accessibility, and suitability in exploring complex, situated understandings such as perceptions and practices within higher education. The next sections focus on how the six-phase framework by Braun and Clarke (2019) assisted me to analyse the interview data collected from the lecturers (Data Set B)

4.4.1 Analysing Data from the Documents (Data set A)

In addition to the qualitative data collected through interviews, I conducted a document analysis of selected national and institutional policy documents in Lesotho (Section 4.3.2.3) to further examine how issues of blended learning are addressed at the policy level. The aim of this process was to identify how blended learning is framed, supported, or limited within official policy discourse.

In this case, the thematic analysis, together with the systematic approach for document analysis by Bowen (2009), was employed. Bowen identifies three interrelated stages: skimming, reading, and interpretation. The first stage, skimming, involves an initial review of documents to assess their relevance and general content which allows the researcher to determine which materials warrant deeper engagement. The second stage, reading, entails a close, repeated examination of the text to identify key statements, recurring terms, and salient themes. During this stage, I manually annotated relevant passages, particularly those concerning digital education, online learning, distance learning, e-learning, teacher training, infrastructure, or implicit references to blended learning.

The third and final stage, interpretation, involves critical reflection on the extracted content to uncover underlying meanings, policy orientations, and contradictions within the documents (O'Leary, 2021). I considered not only what was said but also what was not said, that is, the silences and omissions (Rapley, 2018) particularly around blended learning, digital equity, and implementation strategies. For example, if a policy document mentioned the use of ICT without specifying support for blended learning, I interpreted this as a gap or lack of clarity in policy direction. I also analysed the language and tone

of the documents, noting whether blended learning was framed as an innovation, a necessity, or a supplementary tool. Where terms such as "access," "equity," or "infrastructure" appeared, I reflected on their relationship to blended learning in the context of higher education in Lesotho. I compared themes across different documents to identify patterns, contradictions, or shifts in policy emphasis over time.

4.4.2 Analysing Data from the Interviews (Data set B)

Initially, I had planned to conduct qualitative analysis using the Atlas.ti software. However, due to the lack of institutional support in terms of software access, I resorted to conducting the analysis manually. In fact, I had already started with the analysis through Atlas.ti but unfortunately the institutional licence expired at the time of analysis, and this affected the whole process as I had not yet completed other transcripts. Although more time-consuming, manual coding allowed me to engage more closely with the data and provided an opportunity for deep reflection during each stage of analysis. Following Braun and Clarke's (2006, 2019) framework, I undertook thematic analysis through six systematic phases as outlined below.

- ***Phase 1: Familiarisation with the Data***

In the first phase, I immersed myself in the raw data through repeated reading of the interview transcripts. As Boru (2018) notes, careful and repeated reading ensures that the researcher becomes fully acquainted with the data. All recordings were transcribed verbatim to preserve the authenticity and richness of participants' narratives. I then read and re-read these transcripts, annotating margins with preliminary notes and reflections. This iterative process helped me not only to identify explicit meanings but to also engage with the underlying tone, assumptions, and contexts within participants' accounts (Braun & Clarke, 2019).

- ***Phase 2: Generating Initial Codes***

After familiarisation, I systematically coded the data to identify significant features relevant to the research questions. Coding, according to Terry et al. (2017), involves assigning

words or short phrases to sections of text that represent patterns or ideas. To do this manually, I highlighted meaningful excerpts from the transcripts and wrote codes in the margins or on separate coding sheets. These codes were both descriptive and interpretive, reflecting the dual approach of inductively capturing emerging insights from the data while also considering deductive categories informed by the research objectives. This process produced an initial coding framework that represented lecturers' narratives with both breadth and depth.

- ***Phase 3: Searching for Themes***

Once coding was completed, I began clustering related codes into broader themes. Following Nowell (2017), this involved carefully reviewing the coded data to identify conceptual similarities and overlaps. Codes that shared meaning were grouped together under candidate thematic umbrellas such as "Infrastructure and Technology," "Digital literacy and Competence," and "Training and Professional Development." Draft thematic maps were sketched manually to visualise relationships between codes which supported the development of themes that were both coherent and grounded in the data.

- ***Phase 4: Reviewing Themes***

In this phase, I reviewed and refined the themes by checking them against the coded data and the full data set (Byrne, 2022). Some themes were collapsed where there was significant overlap while others were separated when they encompassed multiple ideas. Through this process, I ensured that each theme captured a distinct and meaningful aspect of the data while remaining supported by sufficient evidence. Decisions and reflections were documented in research notes to maintain an audit trail of the analytic process.

- ***Phase 5: Defining and Naming Themes***

As suggested by Braun and Clarke (2019) and Creswell and Creswell (2023), I conducted an in-depth analysis of each theme to articulate its essence in relation to the research questions. Each theme was clearly defined, and names were carefully chosen to reflect the underlying concepts and meanings captured within the data. I revisited coded extracts

linked to each theme to refine their scope and ensure that definitions were accurate, distinct, and internally coherent.

- ***Phase 6: Producing the Report***

The final phase involved writing up the findings. I selected vivid and compelling quotations from the transcripts to illustrate each theme and demonstrate how they were grounded in participants' voices. These extracts were integrated into the narrative to support my interpretations and highlight the connections between themes and research questions. The figure below summarises the process of analysis.

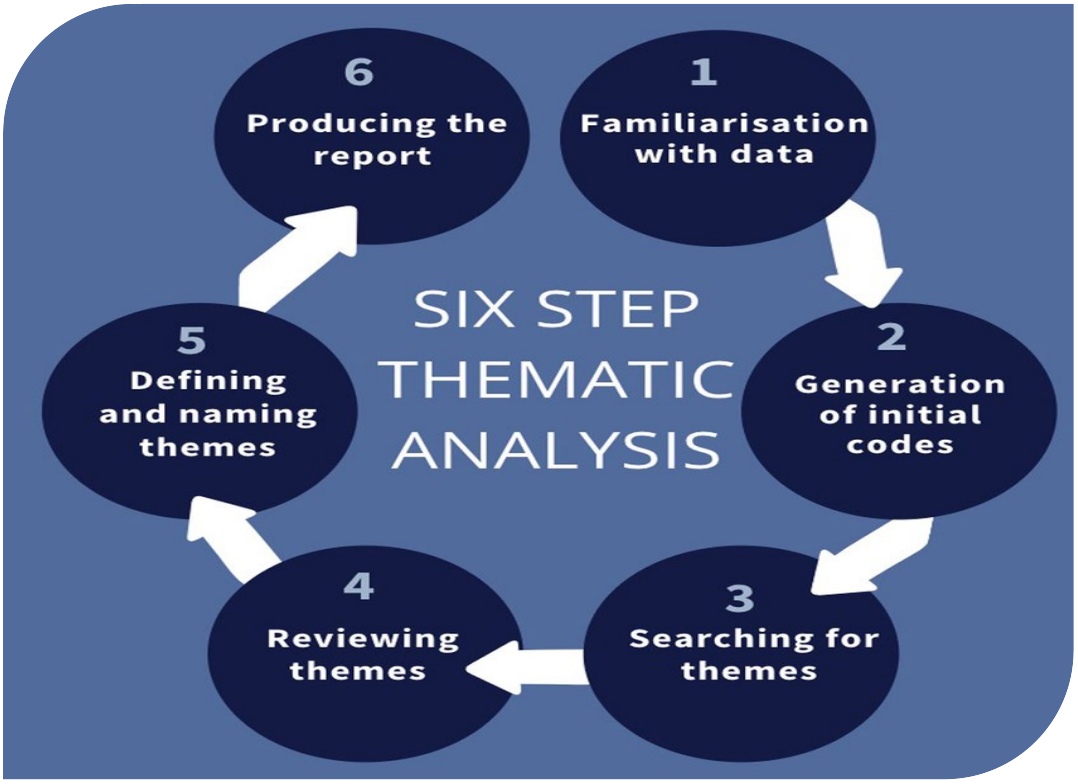


Figure 4.4: Thematic Analysis. Adopted from Braun and Clarke (2006)

The entire analytic process, though manual, was systematic and transparent, ensuring credibility and trustworthiness in the findings.

4.4.3 Quantitative Data Analysis (Data set C)

The quantitative data collected through the adapted CoI survey instrument was analysed using the Statistical Package for Social Sciences (SPSS Version 28). SPSS is a powerful, user-friendly software developed originally by IBM for performing quantitative data analysis, particularly in the fields of social sciences, education, health sciences, business, and psychology (George & Mallery, 2024). Creswell and Creswell (2023) state that in quantitative analysis, there is inferential and descriptive analysis. I used descriptive statistics to calculate measures of central tendency such as mean and standard deviation to summarise the data sets. These descriptive statistics provided an overview of how students generally perceived each dimension of the blended learning experience.

The analysis used a five-point Likert scale response scale range (Annexure 2). The CoI questionnaire sought to explore the perception of students towards blended learning using a five-point Likert scale (1 = strongly disagree, 2 = agree, 3 = unsure, 4 = disagree and 5 = strongly agree). A sample of 152 students, comprising 50 per institution, was tested. The survey data was analysed statistically to calculate the frequency and percentage of responses for each of the 34 statements in the CoI. Graphics such as tables, graphs and charts are used to summarise the patterns and relationships of the variables of the study, as presented in Chapter 5.

4.5 MEASURES FOR TRUSTWORTHINESS IN QUALITATIVE STUDIES

Trustworthiness in qualitative research refers to the degree of confidence in the data, interpretation, and methods used to ensure the quality and rigour of the study (Rakotsoane, 2019). Since qualitative research is often interpretive and context-specific, establishing trustworthiness helps to demonstrate that the findings are credible, dependable, transferable, and confirmable.

4.5.1 Credibility

In qualitative research, credibility, which is also akin to internal validity, is concerned with whether the research findings are believable and accurately represent the participants' experiences (Stahl & King, 2020). To enhance the credibility of the study, I spent adequate time with the participants with the aim to understand the context of the study –

a process which some scholars refer to as prolonged engagement (Nowell et al., 2017; Selialia, 2024). Besides adequate time with lecturers, I ensured there was member checking where the participants reviewed and verified the accuracy of the data they had provided. Another way in which I established credibility was using reflections or the maintenance of field notes and peer examination of the data. The current research ensured credibility by reflecting on the data generated and including peers to examine and evaluate the field notes. The achievement of data saturation enhanced the credibility and dependability of the findings, as recurring themes were consistently observed across multiple cases and participant groups.

Triangulation is another indispensable element used by researchers to ensure credibility. Since the data for the current study was generated through different methods such as interviews and document analysis, that certainly contributed to the consistency and authenticity of the study. Peer debriefing also contributed to credibility by allowing independent reviewers to challenge the researcher's interpretations. Through these approaches, I was able to minimise bias and misrepresentation, and this contributed to the whole study being trustworthy.

4.5.2 Transferability

If the findings of a study can be applied to other contexts, then such study is said to have high levels of transferability (Nyathi, 2018). One of the strategies used to ensure transferability is thick description. To ensure this, I explicitly elaborated the research procedure used in the study. In line with Stahl and King (2020), transferability involves informing the participants about the methods of data collection, how long it will take to collect the data, among others. It should be noted that it was not my intention for the results of the study to be directly transferable to other contexts. The primary goal was to contribute to the improvement of blended learning in HEIS in Lesotho. However, the methodological steps followed allow for the transferability, should similar conditions exist.

4.5.3 Dependability

Dependability involves demonstrating that the research process is logical, traceable, and well-documented (Nyathi, 2018). It aligns with reliability in quantitative research and focuses on the consistency of the research process over time. To ensure dependability, I documented in the annexures all the tools, such as questionnaire and interview schedule, that were used. In the same spirit of ensuring that the study rigour is maintained, I used an internal auditor to examine the research process applied in the study to verify that this was not a haphazardly done process but a transparent and carefully considered research process. Another important element of dependability was the continuous involvement of my supervisor in my research journey, and her feedback was valuable as it provided guidance.

4.5.4 Confirmability

Confirmability refers to the degree to which the findings of the study are shaped by the participants and not researcher's bias, motivation, or interest (Modise, 2022). This addresses the objectivity or neutrality of the research. To establish confirmability, researchers again rely on the audit trail, showing how interpretations and conclusions emerged directly from the data. This also helped to ensure that my personal beliefs and assumptions did not unduly influence the analysis and reporting of results. A key technique used here is *reflexivity*, where researchers actively reflect on their own positionality and potential influence on the research. Keeping a reflexive journal throughout the research process helps document the researcher's evolving thoughts, decisions, and awareness of bias.

4.5.5 Validity and Reliability of the Survey Instrument

To ensure that the adapted Community of Inquiry (CoI) survey instrument administered to students had high validity and reliability, several steps were taken. Firstly, the original CoI survey developed by Arbaugh et al. (2008) was adapted to suit the context of higher education in Lesotho, particularly in relation to students' experiences with blended learning. To maintain content validity, the adapted items were reviewed by three experts in educational technology and research methodology to ensure that each item accurately reflected the three core dimensions of the CoI framework: teaching presence, social

presence, and cognitive presence. Modifications were made to improve clarity, cultural appropriateness, and relevance to the local academic environment. A pilot study was then conducted with a small group of students who were not part of the main sample, and their responses were analysed to identify any ambiguous or misleading items.

While the original instrument has demonstrated high levels of reliability and construct validity, internal consistency reliability was reassessed in the present study due to contextual adaptations and the change in geographical and educational setting. Cronbach's alpha coefficients were calculated for each of the three subscales: teaching presence, social presence, and cognitive presence to ensure that the items consistently measured the intended constructs within the context of higher education institutions in Lesotho. All three subscales produced alpha values above the acceptable threshold of 0.70, indicating that the instrument retained high internal consistency in this study (Annexure 9).

4.6 TRIANGULATION

Triangulation refers to the use of multiple methods, data sources, and theories to study the same phenomenon with the main goal of ensuring validity, credibility, and the depth of the study (Creswell & Plano Clark, 2019). For the present study, using a multiple case study, I employed interviews, document analysis, and questionnaire to generate data. Triangulation was achieved using a convergent parallel mixed-methods design, where quantitative data were collected from students using the adapted Community of Inquiry (CoI) survey, and qualitative data were collected from lecturers through semi-structured interviews. This form of methodological triangulation allowed for the comparison and integration of findings from two distinct but complementary sources. By exploring students' views through quantitative data and capturing lecturers' insights through qualitative data, the study provided a deeper and more comprehensive perspective on the factors affecting blended learning. The alignment of results from these diverse data sources contributed to strengthening the study's credibility and confirmability (Kurata, 2024).

4.7 ETHICAL CONSIDERATIONS

When conducting this study, ethical issues were taken into consideration with the aim to protect the participants from harm. Several ethical matters were considered during the data collection process (Leedy & Ormrod, 2015). Firstly, prior to collecting the data, permission was sought from UNISA, and I was granted an ethical clearance from the UNISA College of Education (Annexure 4). This was followed by seeking permission from the three HEIs (Annexure 5) where the study participants were situated.

During data collection, participant names, email addresses, or even physical addresses that would jeopardise anonymity were not collected in the survey to increase a sense of privacy, safety, and confidentiality among the participants. When using participant names, the researcher ensured that participants were given pseudonyms to protect their privacy (Kurata, 2024). Participants who consented to participate in the study were provided with a consent form to sign, indicating their agreement to the study's terms and conditions (Annexure 4). To align with their understanding of the phenomenon under investigation, participants were also permitted to examine, validate, or modify the research data. Ultimately, a commitment was made to ensure that the data participants supplied was used exclusively for research.

Lastly, all quantitative and qualitative data – including survey answers, transcripts, and other documents – were safely kept in password-protected electronic files that the researcher alone could access. The actual documents were kept in a safe place in locked cabinets. To avoid unwanted access or disclosure, all data were also securely erased after being kept for time mandated by institutional policies.

4.8 CHAPTER SUMMARY

This chapter has explained how data were collected and analysed. The rationale for the choice of the data collection methods was thoroughly explained in this chapter. The research paradigm – pragmatism, which is suitable for mixed-methods research designs was – also described in depth. This chapter also discussed how study rigour was maintained in both the qualitative and quantitative data gathered. I concluded the chapter

by detailing how ethical issues were maintained throughout the study. The next chapter presents the findings of the study.

CHAPTER 5

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

"If you want different results, do not do the same things" Albert Einstein

5.0 INTRODUCTION

In the previous chapter, the research paradigm, approach, design, data collection tools, and study rigour were outlined, as well as ethical considerations. This chapter focuses on the presentation, analysis, and interpretation of the qualitative and quantitative results of the study. Firstly, the analysis begins with the qualitative aspect where the data were collected through document analysis and semi-structured interviews. Secondly, this chapter presents the quantitative results gathered through the adapted Community of Inquiry questionnaire which students responded to.

Firstly, the findings from the qualitative study are presented in the next section (5.1 and 5.2). Table 5.1 below gives a structure of how the data are analysed in this chapter. Then the quantitative data is presented in Section 5.3. Each data set is linked to the relevant research question.

Table 5.1: Structure of Findings

DOCUMENT ANALYSIS FINDINGS (DATA SET A)	**Section 5.1**
INTERVIEW FINIDNGS (DATA SET B)	**Section 5.2**
QUESTIONNAIRE RESULTS (DATA SET C)	**Section 5.3**

5.1. DOCUMENT ANALYSIS FINDINGS (DATA SET A)

This section presents the findings from the document analysis conducted to answer this first research question of the study:

- ***RQ1:*** *What is the nature of blended learning in higher education institutions (HEIs) in Lesotho?*

The analysis of the selected documents (Data Set A) was guided by Bowen's (2009) approach (Section 4.4.2) which emphasises the careful and systematic review of documents for the purpose of identifying patterns, meanings, and empirical insights. The national and institutional documents were examined across several thematic categories including the conceptualisation of blended learning and infrastructure support, among others.

Three tables summarise the data from the documents: Tables 5.2 (Part 1) and 5.3 (Part 2) present themes that emerged from the national documents while Table 5.4 shows data from the analysis of the institutional policies. Since some themes were recurring in both institutional and national policies, they were merged and analysed concurrently.

Table 5.2: National Higher Education Documents Analysis Matrix (Part 1)

Document Name	Conceptualisation of Blended Learning	Infrastructure Support
1. CHE Higher Education Policy (2013)	Explicitly defines blended learning as a mix of face-to-face, distance, and/or e-learning; supports its integration into HEI delivery models.	Recognises importance of ICT but does not outline concrete national infrastructure plans; encourages HEIs to harness ICTs.
2. Open Distance Learning Draft Policy (2022)	Strong emphasis on ODL and e-learning; implies blended learning through integration of ICT into distance learning models.	Calls for improved digital infrastructure to support access, particularly in rural areas; encourages institutional ICT development.
3. National Digital Transformation Policy (2024)	Mentions digital transformation broadly; no explicit definition of blended learning but supports hybrid approaches through digital education strategies.	Strong emphasis on nationwide digital infrastructure, including 4G/5G, broadband expansion, device access, and smart classrooms.

4. HE Strategic Plan (2013-14 to 2017-18)	Does not explicitly mention blended learning; however, supports use of Open, Distance and e-Learning (ODeL) as part of diversifying delivery methods.	Encourages the strengthening of ICT infrastructure and resources within HEIs to support flexible and innovative teaching modes.

Table 5.3: National Higher Education Documents Analysis Matrix (Part 2)

Document Name	Staff Development	Student Support	Policy Commitment
1. CHE Higher Education Policy (2013)	Calls for capacity building and CPD in new teaching methods including ICT use; no detailed blended learning training frameworks.	Acknowledges importance of learner support but focuses more on academic and administrative support generally.	Recognises blended learning as a viable delivery mode but does not mandate it; largely advisory.
2. Open Distance Learning Draft Policy (2022)	Stresses need for training of facilitators in online pedagogy and learner support mechanisms.	Explicit support for distance learners including guidance, counselling, and digital skills training.	Recommends use of blended and online models but stops short of making them compulsory.
3. National Digital Transformation Policy (2024)	Advocates for upskilling in digital tools and pedagogies across sectors, including education; links to national capacity-building goals.	Focuses on digital inclusion; supports universal access and proposes learner-centred digital solutions.	Sets national targets for digital learning adoption across all sectors; indirectly mandates digital and blended education models.
4. HE Strategic Plan (2013-14 to 2017-18)	Calls for CPD in ICT and new teaching methods to support innovation in delivery, including use of ODeL platforms.	Recognises need for academic and administrative learner support in distance and flexible modes, though details are limited.	Implements strategic actions to operationalise earlier policy intentions; encourages, but does not mandate, use of blended or flexible models.

Table 5.4: Higher Education Institutions Teaching and Learning Policies Matrix

Indicator	Institution A (Public HEI)	Institution B (Public HEI)	Institution C (Private HEI)
1. Conceptualisation of Blended Learning	Blended learning is implied through references to flexible, technology-enhanced, innovative learning and the use of LMS, but not explicitly defined.	Blended learning is clearly defined as a mix of traditional face-to-face and web-based activities; appears under delivery modes.	Clearly defines blended learning as a thoughtful integration of online and physical education, reflecting a deliberate pedagogical stance.
2. Policy Commitment and Official Adoption	Blended learning is encouraged through various policy goals and strategies that promote ICT integration and e-learning methods.	Officially adopted; listed among key modes of course delivery and backed by strategies to support its implementation.	Encourages the adoption of blended learning but does not formally require or mandate it in programme delivery.
3. Institutional Support Structures and Staff Development	Support includes LMS use, training and professional development, inclusive teaching, and integration of ICT across programmes.	Support includes infrastructure provision, staff training, LMS use, and required student acquisition of ICT tools.	Institutional support includes the use of the official LMS to enhance and support the teaching and learning process.
4. Blended Learning Model Suggested or Used	While no model is named, features suggest a Flex Model and elements of the Flipped Classroom due to self-paced and ICT-supported learning emphasis.	Blended learning is implemented as one of the official delivery modes; appears to align most with the Flex Model due to asynchronous, LMS-based structure.	No specific blended learning model is suggested or adopted in the policy.
5. Student Support in Blended Learning	Supports students through the Centre for Teaching and Learning and faculty-based initiatives. Offers flexible learning,	Provides structured support through programme tutors, counselling services for at-risk students, and access to multi-	Offers general support by promoting the use of the institutional LMS and encouraging self-directed learning but lacks specific

	training on LMS usage, and emphasises independent, reflective learning.	functional learning environments. Actively addresses digital inclusion and academic challenges.	mechanisms for at-risk student support or dedicated counselling systems.

The themes presented below are based on the analysis of the above national documents (Table 5.2 and Table 5.3) and the teaching and learning policies of the three selected higher education institutions (Table 5.4).

5.1.1 THEME 1: CONCEPTUALISATION OF BLENDED LEARNING

The way blended learning is conceptualised across national education documents in Lesotho reveals varying degrees of clarity and emphasis. For instance, the CHE Higher Education Policy (2013) gives the most explicit definition (Table 5.2) through framing blended learning as a pedagogical approach that integrates face-to-face teaching with distance education and/or e-learning. Interestingly, this definition acknowledges the need for flexible delivery models that accommodate different learners' needs and contexts. While it stops short of prescribing implementation strategies, the policy recognises the relevance of blended learning in transforming teaching and learning in higher education.

In contrast, the Open and Distance Learning (ODL) Revised Draft Policy (2022) does not define blended learning directly, but implies its usage through strong advocacy for the integration of ICTs into teaching and learning. Notably, the policy emphasises modular learning, flexibility, and accessibility and it should be clearly noted that all these are hallmarks of blended education. On the other hand, the National Digital Transformation Policy (2024), though primarily focuses on broader digital reform in Lesotho, positions digital education as a national priority. It promotes hybrid learning models as part of national innovation but does not explicitly define blended learning. Similarly, the Higher Education Strategic Plan (2013–2018), while supporting Open, Distance and e-Learning (ODeL), does not directly engage with blended learning terminology, though its inclusion of flexible teaching strategies implies openness to blended approaches.

At institution level, similar patterns emerge. For instance, in line with Table 5.4, Institution C poses the most direct and pedagogically grounded definition of blended learning where it is defined as the ‘'thoughtful integration of online and physical education” (p.40). This framing suggests a deliberate balance and interdependence between digital and face-to-face instruction, which is consistent with scholarly views that blended learning is not a mere mixture of modalities but rather a purposeful educational design (Garrison & Vaughan, 2008). In comparison, Institution B also presents a formal definition where blended learning is described as a mix of face-to-face and web-based activities. While not as conceptually rich as Institution C’s conceptualisation, it still provides institutional clarity and reinforces its place within the policy structure.

Conversely, Institution A does not explicitly define blended learning. Instead, it conjectures its existence through broad terms such as 'technology-enhanced learning,’ and 'flexible instruction.' Although this language indicates openness to blended approaches, one of the worrisome concerns is that the absence of a formal definition can lead to inconsistencies in interpretation and implementation across departments and faculties. Unequivocally, this may pose a challenge for standardisation and evaluation of blended learning initiatives.

Generally, both national and institutional analyses suggest that the clarity of conceptualisation significantly influences the strength of implementation. Institutions or policy frameworks that provide explicit definitions are better positioned to develop coherent strategies, align teaching practices with pedagogical goals, and train staff effectively.

5.1.2 THEME 2: INFRASTRUCTURE AND INSTITUTIONAL SUPPORT

One interesting theme that emerged from the analysis of these national documents is the infrastructure and institutional support (Table 5.2). It is essential to recognise that infrastructure support is a foundational component for implementing blended learning in higher education institutions. Among the analysed documents, the Digital Transformation Policy (2024) presents the strongest policy commitment where it outlines national strategies for expanding broadband access, deploying smart classrooms, and promoting

4G and 5G networks. All these transformations are fundamental because blended learning relies heavily on internet accessibility. These measures reflect a clear intent to build the digital backbone necessary for effective blended learning across all education levels.

The ODL Draft Policy (2022) also recognises the importance of infrastructure, particularly for ensuring access in rural and remote areas (Table 5.2). It also calls for investments in institutional ICT resources and the provision of learning devices for students, which aligns with the demands of blended learning. Meanwhile, the CHE Higher Education Policy (2013) acknowledges the importance of ICTs but remains abstract as it only encourages HEIs to “harness ICT” without clear specification of infrastructural obligations or national coordination. Correspondingly, the HE Strategic Plan (2013–2018) echoes this position by recommending the strengthening of ICT infrastructure in HEIs but offering limited implementation detail. Collectively, while all documents support infrastructure development to some degree, the level of specificity and enforceability varies significantly. The absence of a unified infrastructure framework across policies may hinder the consistent rollout of blended learning nationally.

At the institutional level, a similar pattern of unevenness is observed although some institutions demonstrate more structured and proactive support systems than others (Table 5.4). To be precise, Institution A stands out for its strong infrastructural and organisational support. It has invested in a robust Learning Management System (LMS) and embeds continuous professional development (CPD) and inclusive teaching practices within its institutional framework. These initiatives collectively create an enabling environment for lecturers to explore digital pedagogies, design hybrid courses, and engage students effectively through multiple modalities.

Institution B also exhibits considerable institutional support through comprehensive strategies focused on staff training, student access to ICT tools, and the creation of multifunctional digital learning spaces. This dual emphasis on both instructor readiness and student empowerment enhances the sustainability of blended learning initiatives. By ensuring that both teaching and learning communities are technologically prepared,

Institution B mitigates barriers to participation and promotes equitable engagement in blended learning environments.

Conversely, Institution C takes a more minimalistic approach by relying largely on its institutional LMS as the primary support mechanism for blended learning. While the LMS provides a foundational platform for course delivery, there is limited evidence of complementary support measures such as ongoing capacity-building, structured professional training, or targeted resource allocation for students. This reliance on individual initiative both from staff and learners poses potential challenges to equity and consistency across disciplines.

Taken together, the analysis underscores that strong infrastructure and institutional support are prerequisites for successful blended learning implementation. National policies provide a broad foundation through digital expansion and ICT prioritisation, but their impact ultimately depends on how institutions translate these commitments into actionable support structures. Institutions that invest in digital infrastructure, staff development, and learner resources demonstrate higher potential for sustainability and inclusivity. Therefore, the integration of technological infrastructure with institutional capacity-building mechanisms remains essential for bridging the gap between policy intent and pedagogical practice in Lesotho's higher education landscape.

5.1.3 THEME 3: STAFF DEVELOPMENT AND CAPACITY BUILDING

Staff development is vital for the successful implementation of blended learning. The CHE Higher Education Policy (2013) underlines the need to strengthen academic staff capabilities through continuous professional development (CPD), especially in ICT and innovative pedagogical strategies. However, the policy is silent in prescribing targeted training for blended or online teaching.

As presented in Table 5.3, the ODL Draft Policy (2022) takes a more deliberate approach as it advocates for institutional investment in training facilitators to design, deliver, and support digital learning. The Digital Transformation Policy (2024) reiterates national-level upskilling objectives but applies them broadly across sectors. The HE Strategic Plan

(2013–2018) similarly promotes CPD and staff training, particularly in ICT adoption and distance learning, reinforcing the need for academic innovation. Despite these commitments, the fragmented training approach and lack of national standards may hinder staff readiness.

In terms of staff development, as depicted in Table 5.4, Institution A provides continuous professional training and promotes inclusive teaching practices, ensuring lecturers are well-prepared to use digital tools effectively. Institution B also prioritises staff development through structured ICT training and support programmes that build capacity for blended delivery. However, Institution C lacks formal staff development initiatives, relying mainly on lecturers' individual efforts to use the LMS, which may limit consistent implementation of blended learning.

5.1.4 THEME 4: STUDENT SUPPORT SERVICES

Effective student support is critical in blended learning environments. The ODL Draft Policy (2022) strongly emphasises learner-centred support systems, including academic guidance, digital literacy training, and psychosocial services (Table 5.3). This policy is the most comprehensive in recognising the differentiated needs of remote and online learners. The CHE Higher Education Policy (2013) also acknowledges the importance of academic and administrative support but is limited in addressing the unique challenges faced by students in blended environments. The Digital Transformation Policy (2024) promotes inclusive access to digital resources but does not elaborate on pedagogical or psychological support. The HE Strategic Plan (2013–2018) also recognises the need for student support systems in distance learning but lacks detail.

However, Institution B as presented in Table 5.4, shows the strongest provision of student support in blended learning. It offers structured systems including programme tutors, counselling services, and responsive digital platforms. Students at risk are identified and supported and the institution provides physical and virtual spaces conducive to learning. These measures ensure that students are not left behind in technology-driven modalities.

Institution A offers moderate student support with services led by the Centre for Teaching and Learning and faculty-based initiatives. Table 5.4 affirms that it promotes independence and reflective learning but there is limited evidence of structured interventions for at-risk students. While the learning philosophy is student-centred, its operationalisation in support services is not well-defined. Institution C adopts a minimalist support structure that promotes self-directed learning and the use of LMS but lacking in formal mechanisms such as academic counselling or targeted outreach for struggling students. This may disadvantage learners who need more guidance and could result in disparities in engagement and performance.

These findings suggest that robust student support structures are vital for effective and equitable blended learning. Without such mechanisms, institutions risk creating or widening digital divides and undermining student success. Overall, while the documents express awareness of support needs, implementation strategies remain limited.

5.1.5 THEME 5: POLICY MANDATES AND STRATEGIC DIRECTION

Table 5.3 confirms that a clear mandate is crucial for institutional commitment and resource allocation. The CHE Higher Education Policy (2013) supports blended learning as an innovative approach but stops short of issuing binding directives. The ODL Draft Policy (2022) strongly recommends blended models as part of distance education strategy yet does not formalise them as compulsory.

In contrast, the Digital Transformation Policy (2024) adopts a firmer stance by outlining national targets for digital learning integration. It sets ambitious goals for widespread adoption of hybrid education models across institutions. The HE Strategic Plan (2013–2018) implements policy intentions through strategic actions but lacks the enforcement mechanisms necessary to institutionalise blended learning. These gaps highlight the need for harmonised and enforceable policies.

The thematic analysis reveals that Lesotho’s national policy landscape provides a supportive but fragmented foundation for blended learning in higher education. While some policies offer clear conceptual definitions and ambitious infrastructural goals, others

remain vague in their directives or implementation strategies. Strengths lie in the Digital Transformation Policy's infrastructure roadmap and the ODL Draft Policy's learner support orientation. However, consistent mandates, curriculum integration, and staff development plans remain underdeveloped. The next section analyses the institutional policies.

Regarding policy commitment, Institution B leads by officially adopting blended learning as one of its designated delivery modes (Table 5.4). The institution's policy mandates that each programme must specify its delivery method, thus formalising blended learning as an instructional standard. This explicit commitment is essential for mainstreaming blended learning across departments and for allocating institutional resources accordingly. It also facilitates monitoring and evaluation of blended delivery practices.

In contrast, Institution A only implicitly encourages blended learning through the promotion of flexible and digital instructional strategies (Table 5.4). Although the policy discusses LMS integration and digital learning strategies, it does not require programmes to identify or adopt blended learning explicitly. This creates space for innovation but also introduces the risk of fragmented or isolated practices that lack institutional support and coherence. Institution C, however, occupies a middle ground. While it encourages the adoption of blended learning, it does not formally require it across programmes. This encouragement reflects institutional openness to innovation but may be insufficient to drive consistent implementation without a corresponding mandate or accountability framework.

These patterns insinuate that explicit policy mandates, as seen in Institution B, are more likely to institutionalise blended learning and integrate it within academic planning. Institutions that merely encourage adoption without formalising it may experience varied uptake depending on departmental leadership and staff readiness.

5.1.6 THEME 6: BLENDED LEARNING MODEL SUGGESTED OR USED

Upon scrutiny of the three teaching and learning policies, it appears that none of the institutions studied explicitly adopt a named model of blended learning such as the

Rotation, Flex, or Flipped Classroom models as discussed in Chapter 2 (Literature Review). Nevertheless, certain indicators advocate for the presence of model-aligned practices. For example, Institution A's focus on self-paced, LMS-supported learning implies elements of the Flex Model which relies heavily on digital delivery and learner autonomy. Institution B, by the same token, while not specifically naming a model, associates closely with the Flex Model due to its emphasis on asynchronous learning and structured LMS integration. What is deduced from this is that the flexibility afforded to students and staff through electronic communication and content delivery reflects an underlying philosophy of personalised, student-centred learning.

An analytical perspective on Institution C also shows no specific model suggested or used. The institution's general encouragement of blended learning and focus on the LMS as a support tool allude to the foundational exploratory phase of adoption. The hypothetical assumption based on these findings is that the lack of model reference might be intentional to allow flexibility or could indicate a gap in strategic pedagogical planning. As a result, this absence of model articulation across all institutions could limit the scalability and evaluation of blended learning practices.

5.2 FINDINGS FROM THE INTERVIEWS (DATA SET B)

This section presents the analysis and interpretation of the interviews. The semi-structured interviews were focused on answering these research questions:

- **RQ2:** *How do lecturers perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?*
- **RQ4:** *Which best practices for learner support in blended learning are required within Lesotho's higher education institutions?*

5.2.1 Lecturers' Biographical Information

Considering ethical issues, I used numbers to present lecturers' names (P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11 and P12). The biographical data included gender of the participants, their age, highest qualification, academic rank within the institution, their departments, the type of institution where the participant is employed, teaching

experience in higher education and experience in teaching in blended learning/online learning environment.

The sample consisted of seven males and five females. While the overall balance appears relatively even, subtle patterns emerge in terms of roles. Male participants were more likely to occupy full-time lecturer positions across Languages and Communications Faculties, whereas females were often represented in part-time lecturer roles, particularly within Education Faculties. As shown in Table 5.5, the participants' ages ranged from 31 to above 50, illustrating a mix of early-career, mid-career, and senior academics. Table 5.5 is a summary of the participants' profiles.

Table 5.5: Lecturers' Biographical Information

INSTITUTION A (PUBLIC HEI)							
P	**M/F**	**Age**	**Qualifications**	**Rank**	**Teaching Experience in HE**	**Blended Learning Experience**	**Department/ Faculty**
1	M	31-40	Masters	Lecturer	6 - 10 years	4 - 6 years	Languages
2	F	50+	Doctorate	Part-Time Lecturer	6 - 10 years	4 - 6 years	Education
3	M	41-50	Masters	Senior Lecturer	Less than 5	1 - 3 years	Education
4	F	31-40	Masters	Part-Time Lecturer	Less than 5	4 - 6 years	Education
INSTITUTION B (PUBLIC HEI)							
5	M	41-50	Doctorate	Senior Lecturer	6 - 10 years	Less than a year	Communications
6	F	31-40	Doctorate	Part-Time Lecturer	6 - 10 years	4 - 6 years	Education
7	M	31-40	Masters	Lecturer	Less than 5	1 - 3 years	Languages
8	M	50+	Doctorate	Lecturer	Less than 5	1 - 3 years	Education
INSTITUTION C (PRIVATE HEI)							
9	M	41-50	Masters	Lecturer	6 - 10 years	4 - 6 years	Communications
10	M	41-50	Masters	Lecturer	6 - 10 years	4 - 6 years	Languages
11	F	31-40	Masters	Lecturer	Less than 5	1 - 3 years	Communications
12	F	50+	Doctorate	Senior Lecturer	Less than 5	1 - 3 years	Languages

***P=Participant *M/F=Male/Female**

Regarding qualifications, many participants held Master's degrees (seven), while five held Doctorates. In relation to rank, the sample included senior lecturers, lecturers, and part-time lecturers. Senior lecturers were found across both public and private institutions, while part-time lecturers appeared only in public institutions.

In terms of institutional affiliation, Table 5.5 portrays that eight participants were from public institutions while four were from a private institution. Teaching experience in higher education varied, with six participants having between six and ten years of experience, and six having less than five years.

Table 5.5 shows that four participants reported having between one and three years of blended learning experience, another four had between four and six years, while the remaining four had less than one year of experience. In terms of the level of students taught, half of the participants (six) taught both undergraduate and postgraduate students, whereas the other half (six) were involved in teaching undergraduates only.

Finally, the faculties represented included Education (five participants), Languages (three participants), and Communications (three participants). Education was represented mainly in public institutions, while Languages and Communications appeared across both public and private institutions.

5.2.2 Themes generated from the interviews (Data set B)

This section presents the themes that were generated from the semi-structured interviews with lecturers from the three institutions. The themes in this section were directly linked to the second research question.

Lecturers were interviewed regarding their views about factors that contribute to successful blended learning in their respective higher education institutions in Lesotho. The data were analysed under the themes presented in Table 5.6 and Table 5.7. The comprehensive codebook presented below shows the themes and sub-themes. It shows how raw data from the interviews have been systematically categorised into broader themes that align with the study's objective. In this study, the codebook illustrates both barriers (Table 5.6) and prospects (Table 5.7) of blended learning implementation as perceived by lecturers. By presenting themes alongside their sub-themes, the codebook

provides transparency in how the data were interpreted and ensures consistency in linking participant voices to the emerging findings.

Table 5.6: Themes and Codes – Lecturers' Data on Barriers of Blended Learning

Theme	Sub-theme (Codes)
1. Infrastructure and Technology	Lack of Suitable Gadgets
	Inadequate/Absent LMS
	Unreliable Internet Access
	Poor Infrastructure in Remote Areas
2. Digital Literacy & Competence	Limited Student Digital Literacy
	Lack of Technological Skills among Learners
	Technophobia among Students
	Lecturers' Limited Competencies
3. Training and Professional Development	Need for Continuous Training
	Inadequate/One-off Training
	Absence of Institutional Training Programmes
	Peer Support and Mentorship
4. Institutional Policies and Support	Policies Lack Clarity/Enforcement
	Blended Learning Only During Crises
	Limited Institutional Incentives
5. Student Motivation and Engagement	Decline in Student Motivation Online
	Difficulty Engaging in Online Discussions
	Poor Time Management

5.2.2.1 THEME 1: INFRASTRUCTURE AND TECHNOLOGY

A recurring theme across the interviews was the inadequacy of infrastructure and technology which participants identified as a major barrier to the successful implementation of blended learning in Lesotho HEIs. Lecturers detailed how the absence

of reliable technological tools and resources undermined both teaching and learning processes.

In addition, several participants pointed to the lack of appropriate devices such as laptops, tablets, and smartphones which left many students unable to access online platforms or fully participate in virtual sessions. Others highlighted the unreliability or complete absence of Learning Management Systems (LMS) in some institutions, and this was considered a critical barrier as it resulted in fragmented delivery of course content and limited interaction. Another indispensable code that emerged was poor internet connectivity, particularly in rural and mountainous areas of Lesotho. Equally important, broader infrastructural issues such as irregular electricity supply compounded these challenges, which left entire groups of students excluded from digital learning opportunities. The sub-themes that emerged are elaborated and discussed below together with verbatim quotations from the interviewed participants.

Sub-theme 1: Lack of Suitable Gadgets for Students

Lecturers repeatedly stressed that the lack of proper devices was one of the critical barriers to blended learning. Participant 12 explained:

> *The main issues are the lack of suitable gadgets. Some of my students are eager to learn but they are unable to follow online classes because they either share devices at home or rely on outdated phones that do not support the platforms we use.* (P12)

The expression by Participant 12 highlights that the issue is not a lack of interest on the part of students but rather limited access to functional technology which prevents them from participating fully in digital classes. Many of the devices the students use are incompatible with current digital platforms like Zoom or Google Classroom, which significantly affects their ability to engage online. Building on this concern, Participant 1 noted that the challenge of devices is compounded by other infrastructural limitations, and this is how she succinctly puts it:

> *Some students have limited internet coverage and electricity supply where they live, which already makes access difficult. On top of this, many do not own laptops*

or tablets that would allow them to download materials or participate in virtual discussions (P1).

In the preceding quotation, it could be deduced that the lack of devices is intertwined with broader systemic problems which depict that even where connectivity is possible, students are often restricted by the absence of appropriate hardware. In a resource-constrained country like Lesotho, infrastructure such as access to electricity is still a huge challenge, especially in remote areas therefore in line with this participant. This further exacerbates the problem. Another important aspect to note from Participant 1 is that despite her students willing to join the class, they further face the problem of network connection.

To extend this argument, Participant 4 linked the lack of devices with students limited digital competence:

Learners have little to no technological skills and part of the problem is that some of them do not even have the proper devices to practise on. Without computers or at least smart devices, blended learning remains just an idea. (P4)

This reflection suggests that access to devices is not only about their physical availability but also about their role in enabling students to acquire and strengthen the digital literacy skills required to thrive in blended environments. In other words, even when institutions make online platforms available, the absence of appropriate devices prevents students from engaging meaningfully with these resources and limits opportunities to practise essential ICT skills.

Access to functional gadgets therefore becomes a prerequisite for participation as it determines whether learners can navigate learning management systems, complete online assessments, or collaborate with peers in digital spaces. Without such access, students are not only excluded from immediate learning activities but are also denied the chance to build long-term competencies that are increasingly vital in higher education and beyond.

Similarly, Participant 6 reiterated the economic burden associated with acquiring suitable devices for efficient running of blended learning programmes across institutions. The participant articulated:

> *Ntate* (meaning Sir)*, blended learning highly depends on technology, yet most of my students cannot afford laptops or tablets. Even those who have phones find them inadequate for downloading large files or attending live sessions.* (P6)

This implies that when considering blended learning, affordability, or the socio-economic inequalities shape access to education because students with limited financial resources are disproportionately excluded from the benefits offered by blended learning. If some students cannot afford laptops, tablets, or even sufficient data packages, it means such students are unable to compete on equal footing with their peers who have access to reliable devices and stable internet connections. In simpler terms, this suggests a digital divide. This comment further reinforces the idea that technological infrastructure is not just a pedagogical requirement but also a social justice issue since unequal access perpetuates broader patterns of inequality within the higher education system. The next code under this theme focuses on absent Learning Management Systems in higher education institutions.

Sub-theme 2: Inadequate and/or absence of Learning Management Systems (LMS) in HEIs in Lesotho

From the lecturers' views, the absence or unreliability of Learning Management Systems (LMS) emerged as a serious barrier to the successful implementation of blended learning. The participants revealed that in many cases these systems are either entirely absent, poorly maintained, or unreliable, which undoubtedly compromises their role as the core infrastructure for blended learning. Instead of supporting teaching and learning, the weaknesses of LMS create additional frustrations, which forces lecturers to improvise leaving students uncertain about how to access content and engage with their courses. In lamentation, Participant 5 echoed these words:

> *There is no LMS at our university… so it makes it harder to implement blended learning. I end up sending students videos or links which is not sustainable.* (P5)

The above statement highlights how the complete absence of an institutional LMS forces lecturers to adopt methods that lack structure and consistency. While sharing links or videos may provide temporary solutions, it cannot replace the comprehensive functions of an LMS such as hosting materials, tracking progress, facilitating interaction, and assessing students. Without a reliable system, blended learning risks being reduced to fragmented practices that place unnecessary strain on both lecturers and students. Adding to the above perspective, Participant 11 observed:

> *The learning management systems we use are not reliable. Sometimes they freeze or crash during assessments, leaving students frustrated…* (P11)

On the same note, Participant 7 reported:

> *Our LMS exists but it is not user-friendly and crashes when too many students log in. This discourages both lecturers and students from relying on it.* (P7)

The utterances of Participants 11 and 7 bring to light that even when an LMS is present, technical instability and poor design undermine trust in the platform. Students become frustrated as explicitly stated by Participant 7 who cites frustration when systems freeze or crash during assessments. This may not only affect their motivation but also threatens the integrity of evaluation processes which is also a vital area of concern in online environments as it determines the integrity and authenticity of such. At the same time, lecturers note that systems which are not user-friendly and cannot accommodate large numbers of users discourage reliance on them. In such contexts, the LMS becomes a liability rather than a support tool, weakening the credibility of blended learning. This discouragement is significant because it highlights that technology alone does not guarantee success; platforms must also be reliable, intuitive, and scalable if they are to meaningfully support teaching and learning.

Along similar lines, Participant 1 explained the implications of inconsistent access:

> *Students sometimes go for the whole semester not being able to register on the university's LMS, which defeats the purpose of having a digital learning platform in the first place.*

This reveals the seriousness of administrative or technical failures that block students from using the LMS altogether. If learners are excluded from the system for extended periods, the very foundation of blended learning collapses, as students are unable to access essential resources or engage in structured learning activities.

Sub-theme 3: Unreliable Internet Access

Another persistent barrier raised across the interviews was unreliable internet access which significantly hinders the effective implementation of blended learning. One important aspect to note is that internet access is central to online instruction, however, several participants raised a worrisome concern that in Lesotho it remains inconsistent, especially in rural and mountainous regions.

In relation to this sub-theme, Participant 10 articulated:

> *Lesotho's landscape makes it hard for students in rural districts such as Thaba-Tseka and Mokhotlong districts to connect…. Even when they manage to join online sessions, the connection is weak, and they miss important parts of the lecture. Some students, when it is time for class, must climb up to the top of the mountain just to stay connected.* (P10)

The comment raised by Participant 10 underscores the continual perpetuation of the digital divide encountered especially by students from geographically disadvantaged areas in Lesotho. This situation leaves many students stranded and unable to follow lessons synchronously, forcing them to rely on incomplete information.

In support of the above declaration, Participants 12, 5 and 9 raised concerning issues regarding access to the internet and participating in online learning as a vital component of blended learning. The participants' voices are captured in Figure 5.1 below.

Participant 12	Participant 5	Participant 9
In my classes, poor internet connectivity in remote areas is a major problem. Students fall asleep repeatedly during lessons and this discourages participation. My classes are normally interactive and as a result of the internet connection, we frequently fail to achieve our objectives.	*In most areas, internet coverage is extremely poor especially for students in rural areas. They simply cannot join sessions consistently, even when they want to.*	*I think the institution must assess internet accessibility. Even on campus, not all areas have reliable coverage and this makes it hard to implement blended learning properly.*

Figure: 5.1: Participants' Quotations on Unreliable Internet Connection

From these three remarks, it could be argued that constant interruptions frustrate learners and erode their motivation ultimately causing many to withdraw from online components even when they are committed to their studies. Also, the statement by Participant 5 above demonstrates that the problem is not always a lack of willingness on the part of students but mainly systemic infrastructural gaps that exclude them regardless of their determination. In situation like this one, blended learning risks privileging students in urban areas while marginalising those from disadvantaged backgrounds, therefore increasing the digital divide. The perspective by Participant 9 further exemplifies that unreliable internet is not only a rural problem but also an institutional one as even university campuses do not always provide stable connectivity.

Sub-theme 4: Poor Infrastructure in Remote Areas

Beyond issues related to internet connection, participants also pointed out to broader infrastructural limitations which impede implementation of blended learning. These limitations include inconsistent electricity supply, lack of technological infrastructure, and the compounded effects of living in remote or underserved regions.

Participant 4 submits that blended learning assumes a baseline of infrastructure which, in reality, is not guaranteed in many parts of Lesotho. For such students, participation is

restricted not only by digital access but by the absence of the basic utilities necessary to engage in modern learning environments. He puts it as thus:

> *Some students live in areas where there is no electricity or internet coverage. They cannot even charge their phones or laptops regularly, let alone join an online lecture.* (P4)

Along similar lines, Participant 1 explicates:

> *Many areas in Lesotho can't access the internet at all and unreliable power supply makes matters worse. Even when students try their best to learn online, the infrastructure around them works against them. I believe unless alternative solutions are explored, such as the use of E-band radio waves, blended learning will remain out of reach for many students in Lesotho* (P1).

In the same tandem Participant 7 echoed:

> *Even if the LMS was reliable, students in rural areas would still be excluded because of the lack of basic infrastructure such as electricity…. Sir this means that blended learning is not simply about improving platforms but also about addressing fundamental issues of access in the country.* (P7)

The comments raised are a clear indication that even when students and institutions are doing their best to ensure that blended learning is practised, infrastructural gaps neutralise these efforts. Furthermore, the participants are adamant that unless electricity and internet connection are fixed within most parts of Lesotho, blended learning remains infeasible.

Extending this concern to institutional practice, Participant 4 points to a further layer of exclusion showing how part-time staff, who often serve rural populations, are doubly disadvantaged; first by their employment status and, second, by infrastructural neglect. She expounds:

> *Part-time lecturers and their students are especially disadvantaged in rural areas where there is no institutional support for electricity or connectivity.* (P4)

In conclusion, the responses from the interviewed participants reveal that infrastructure and technology form the foundation upon which blended learning can either succeed or fail. Across institutions, lecturers consistently identified four major barriers: the lack of suitable gadgets, the inadequacy or unreliability of LMS, poor internet connectivity, and broader infrastructural deficits such as irregular electricity supply. These challenges intersect and reinforce one another. For example, even when students have the motivation to participate, the absence of devices, unstable networks, or unreliable power supplies exclude them from meaningful engagement.

The findings therefore reveal that technological and infrastructural barriers are not isolated inconveniences but systemic issues that perpetuate inequity between urban and rural learners, full-time and part-time staff, and well-resourced and under-resourced students. The next section elaborates on Theme 2 under the barriers to effective implementation of blended learning.

5.2.2.2 THEME 2: DIGITAL LITERACY AND COMPETENCE

When asked about the level of digital literacy and competence, the participants raised concerns about varying levels of digital literacy among both students and lecturers. Participants explained that beyond access to infrastructure, the success of blended learning depends heavily on the ability of users to competently navigate digital platforms. Limited digital skills, technophobia, and lecturers' own competence gaps all emerged as factors shaping the implementation of blended learning. The sections below discuss the sub-themes that emerged in detail.

Sub-theme 1: Limited Digital Literacy

A major concern raised by lecturers was that many students lacked the digital literacy skills necessary to fully engage in blended learning. While institutions may provide access to online platforms, students' inability to navigate these systems limits participation and slows down the teaching process. This challenge goes beyond simply logging into the LMS; it extends to uploading assignments, joining discussions, and even understanding

how to interact with digital resources in meaningful ways. To be precise, one participant stated:

> *Some of my students lack digital literacy which affects their ability to engage fully with the online components. Even when the LMS is available, some struggle to navigate it, which slows down the class and requires additional guidance from me.* (P6)

This participant's response elucidates how lecturers are often required to act as both instructors and technical support officers because when the students face challenges with the use of LMS, in most cases lecturers must address the issue so that their classes are not negatively impacted. This dual responsibility reduces instructional time and weakens the intended efficiency of blended learning. Adding to this observation, Participant 12 expounded:

> *I have encountered varying levels of student digital literacy. Some students are quick to adapt while others cannot participate meaningfully in online forums because they lack even the basic skills.* (P12)

Here, the issue of inequality becomes clearer. Students who already possess digital skills benefit more, while those without such competencies remain on the margins of learning. This uneven distribution of readiness creates a digital divide within the same class, reinforcing inequity in participation and outcomes.

Another reflection by Participant 8 is that assessment results in blended learning environments may not always reflect students' true academic ability. Instead, technical challenges such as file formatting, uploading, or navigating platforms distort their performance, which makes digital literacy not just a support skill but a core determinant of success. He puts the argument thus:

> *Some learners cannot even prepare or upload material in the right format for online interaction. They fail assessments not because they don't know the content but because they lack the skills to use the system.* (P8)

Taken together, these opinions show that digital literacy is not simply an optional skill but a foundational requirement for meaningful participation in blended learning. Without addressing this gap through structured training and support, institutions risk leaving behind students who lack the competencies to use digital platforms effectively.

Sub-theme 2: Lack of Technological Skills among Learners

Beyond basic digital literacy, lecturers stressed that many of their blended students lacked even the fundamental technological skills required for blended learning. This includes essential tasks such as logging in to systems, uploading assignments, or participating in discussion forums. The absence of these skills creates barriers that prevent learners from fully engaging with the resources provided. When asked about the accessibility of technology, Participant 5 clarified:

> *Learners have little to no technological skills. They often do not know even simple things like logging, uploading assignments, or participating in discussion forums on Google Classroom. Even though I try to send videos to guide them how to navigate the platform, many cannot use them properly because of these basic gaps.* (P5)

The foregoing comment stresses that lack of foundational ICT skills undermines lecturers' efforts to make teaching interactive as they have frequently attempted to guide their students in navigating the used platform. Even though there are videos intended to enhance engagement, they are rendered ineffective when students cannot use them appropriately. As a result, technology that should empower learners instead reinforces exclusion. This was further reinforced by Participant 10 when he echoed these words:

> *Some students cannot even navigate the LMS or alternative platforms when the main one is down. Without training, these students end up excluded from critical aspects of the learning process.* (P10)

On a similar note, Participant 7 observed:

> *Students struggle with effective tool use. Even when platforms like Thuto or Zoom are available, not all students are competent enough to use them effectively which limits their participation in online environments.* (P7)

These reflections, particularly by Participant 10, highlight the importance of adaptability. What is commonly known about blended learning environments is that technical failures are inevitable, yet students without the skills to navigate alternative tools quickly find themselves left behind. This cited evidence therefore suggests that digital competence is not only about using a specific platform but also about the ability to switch between systems when required. For Participant 7, the emphasis shifts to the gap between access and actual use. While institutions may provide multiple platforms, these are of little benefit if students cannot use them efficiently. This mismatch between provision and usability shows that investment in infrastructure alone is insufficient without corresponding investment in student training.

Sub-theme 3: Technophobia Among Students

In addition to limited literacy and skill gaps, some participants underlined a different but equally significant barrier to blended learning: *technophobia*, or the fear and reluctance to use technology. Unlike technical incapacity, technophobia stems from emotional and psychological resistance often expressed as distrust of online platforms or a preference for traditional teaching methods. This attitude directly influences how students engage with blended learning as it reduces their willingness to even attempt participation. This was authenticated by Participants 3, 5, and 9 as highlighted in Figure 5.2 below.

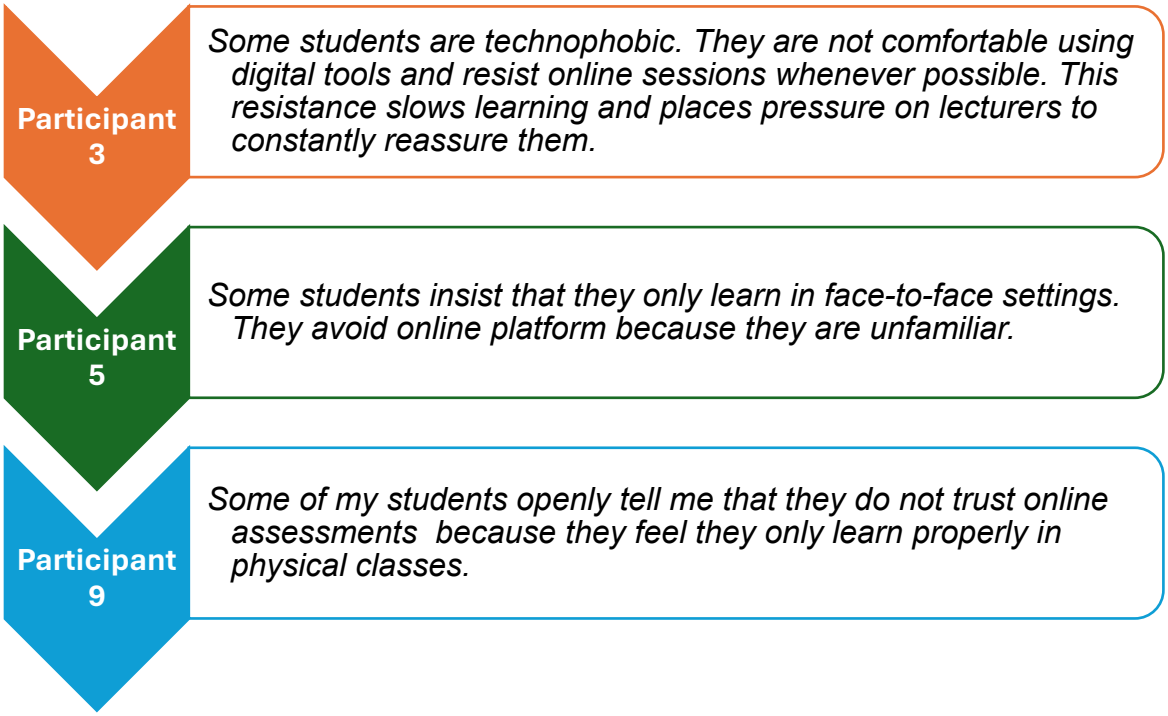


Figure 5.2: Voices of Participants on Technophobia

Collectively, these comments indicate that technophobia is not simply about lacking skills but also about an underlying reluctance to embrace new ways of learning. As Participant 3 suggested, this resistance creates additional burdens for lecturers, who must act as motivators and provide constant reassurance instead of focusing primarily on instruction. This suggests that even when technological resources are available, their effectiveness is compromised by students' lack of confidence and willingness to use them. This implies that blended learning must address emotional and psychological readiness, not just technical capacity.

In addition, the perspectives of Participants 5 and 9 reveal that technophobia is closely tied to *perceptions of credibility*. For many students, traditional classrooms remain the gold standard of "real" learning while digital platforms are regarded with scepticism or mistrust. This preference for face-to-face learning reflects deeper cultural associations between education and physical presence. As a result, online assessments and activities are undervalued with students assuming they cannot provide an accurate measure of their learning. This finding emphasises that the challenge of blended learning in Lesotho

is partly cultural, which requires shifts in attitudes and norms as much as investments in infrastructure.

Finally, Participant 12's observation reinforces the idea that technophobia is not always linked to outright refusal but often manifests in subtle forms of avoidance. She articulated:

> *There are learners who even when given access, shy away from using digital tools. They prefer me to explain everything in person, which shows they are hesitant to rely on online platforms.* (P12)

This implies that even when students are provided with access, they may still shy away from using digital tools, preferring in-person explanations. This indicates that access alone does not guarantee engagement; rather, confidence-building, orientation programmes, and gradual exposure to technology are essential for ensuring that students do not remain passive in blended environments.

Sub-theme 4: Lecturers' Limited Competencies

Another dimension of digital competence raised by participants was the challenge faced by lecturers themselves in adopting blended learning. Even though students often struggle with digital literacy and skills, lecturers admitted that they too lack confidence and training in using technology for teaching. In some cases, the problem stemmed from limited institutional support while in others it reflected lecturers' preference for traditional methods over new digital platforms. Together, these limitations mean that lecturers are not always well-positioned to model or facilitate effective blended learning practices. Participant 5 admitted:

> *I also have seen that most lecturers prefer face-to-face learning. I've observed that many are not fully aware of the online platforms available, and they are more comfortable sticking to traditional methods.* (P5)

Similarly, there was concern in relation to the support given by the institutions. Participant 12 avowed:

> *I have never received any training or support in blended learning. While I try to improvise and explore tools on my own, it is difficult to master both the technical and pedagogical aspects without structured support.*

Another participant raised a worrisome concern regarding the training and support they were given, especially during the COVID-19 period. She shared:

> *During COVID we were trained only on Google Classroom…. It was very minimal, and since then there has not been follow-up training. As a result, many lecturers are left to figure things out on their own…which means some never fully adopt blended learning practices.* (P2)

The other participant further emphasised:

> *Even with support from the IT department, not all lecturers are confident. Some need constant assistance to use the tools effectively and this slows down teaching and learning.* (P8)

These findings collectively show that lecturers themselves face significant challenges in developing the competencies required to implement blended learning effectively. As Participant 5 pointed out, many educators continue to rely on face-to-face teaching simply because they are more comfortable with traditional methods and lack exposure to online platforms. This suggests that blended learning is not only limited by infrastructural gaps but also by the preparedness and willingness of educators to move beyond familiar pedagogical approaches. Without developing confidence and skill, lecturers risk perpetuating a cycle where online components remain underutilised.

Similarly, the perspective by Participant 12 reinforces the institutional gap in providing structured support for lecturers. Having to rely on self-learning or improvisation places lecturers at a disadvantage as they are left to simultaneously master technical and pedagogical aspects without guidance. This highlights that competence in blended learning cannot be left to individual initiative; rather, it requires institutional investment in structured, continuous professional development. The lack of such support results in uneven skill levels among staff, which undermines consistency in how blended learning is delivered across departments.

The experiences of Participants 2 and 8 further reinforce the inadequacy of once-off or reactive training efforts. As indicated, minimal exposure during the COVID-19 crisis provided a temporary stop-gap but the absence of follow-up programmes has left many lecturers stranded. Even where IT support exists, as Participant 8 has noted, reliance on constant assistance slows down teaching, suggesting that lecturers remain dependent rather than empowered. These accounts demonstrate that without a long-term strategy for building lecturer competence, blended learning will remain fragile, inconsistent, and overly reliant on institutional technicians rather than academic staff themselves. The theme on lack of training and professional development among lecturers is elaborated in the next section.

5.2.2.3 THEME 3: TRAINING AND PROFESSIONAL DEVELOPMENT

Participants consistently stressed the lack of sufficient training and professional development as a barrier to the successful implementation of blended learning. When asked whether they had received any training or support for blended learning, the majority indicated that there was no training. In other instances, some institutions had introduced training initiatives, although they were often considered limited, once-off or reactive. Lecturers noted that without continuous professional development, both students and staff remain unprepared to effectively use digital platforms. To authenticate this, Participant 8 echoed these words:

> *For me I observed that lecturers need training on how to use learning management tools and digital assessment tools. I have received some of this training, but more is still needed….* (P8)

This submission by Participant 8 indicates that while institutions may occasionally provide workshops, they are rarely comprehensive enough to build full competence. Partial training leaves lecturers confident in some areas but underprepared in others resulting in inconsistent teaching practices and a lack of trust in the platforms available. Building on this argument, Participant 4 explained:

> *To effectively implement blended learning, I believe lecturers like myself need ongoing training and support in both technical and pedagogical areas. I would also benefit from mentorship or peer support groups where we can share experiences and strategies. Anyway, I have never received any training or support.* (P4)

A deeper interpretation of this comment is that the emphasis shifts from one-time training workshops to the idea of continuous professional development. This comment stresses that training should not only focus on technical competence such as how to operate the LMS but also on the pedagogical strategies that make blended learning effective. Moreover, his call for mentorship and peer-support groups reflects the recognition that professional growth is not only institutional but also collaborative. The absence of such structures means lecturers are left isolated with no opportunities to reflect, share, or learn from colleagues. When also asked whether he had received training, Participant 12 said:

> *During COVID-19 we were trained only on Google Classroom. It was very minimal, and since then there has not been follow-up training. As a result, many lecturers are left to figure things out on their own which means some never fully adopt blended learning practices.* (P12)

This submission underlines the reactive and temporary nature of training provision in higher education institutions. As emphasised, the COVID-19 pandemic acted as a catalyst for exposing lecturers to digital tools but the training offered was minimal, rushed, and crisis-driven. Without systematic follow-up, many lecturers either forgot the skills they learned or never gained the confidence to apply them consistently. This experience reveals a structural flaw in the way institutions view professional development - as a short-term emergency measure rather than a sustained investment.

Echoing this concern, Participant 5 extends the conversation by pointing out that training gaps are not limited to lecturers alone but also affect students. If students are left without adequate training, they remain unable to use the very platforms intended to support them, which compounds the challenges lecturers face. His call for ongoing training reflects the recognition that digital competence is not static, rather, it requires continuous updates as platforms evolve, tools change, and new challenges emerge. Without such ongoing

investment, both students and lecturers will remain caught in cycles of exclusion, frustration, and underperformance. He put it this way:

> *There is a real need for training on the use of internet and online tools among learners and lecturers. Training for blended teaching approaches should be ongoing, not just once-off.*

Equally important, Participant 6 introduces a more positive note by showing that institutional support can exist and be effective. However, it also reveals dependency: lecturers who lack confidence rely heavily on IT staff which slows down responsiveness and limits independent growth. She suggests that while support structures are valuable, they should be complemented by programmes that empower lecturers to become self-sufficient digital educators. She noted:

> *The IT department provides ongoing training and technical support to lecturers, assuring their proficiency in adopting blended learning methodologies through seminars, tutorials, and one-on-one help. We also seek their expertise to fix issues or enhance instructional methods.* (P6)

Finally, Participant 4 observed:

> *Yes, we need proper training. Our institution has a Centre for Teaching and Learning that supports lecturers and students. But I think more effort should be made to encourage everyone to attend.* (P4)

This reflection underscores that even when training opportunities exist, participation is uneven. The problem is not just provision but uptake. This implies that lecturers who are reluctant to change teaching practices often avoid training altogether. Therefore, this indicates that professional development must be both accessible and incentivised, ensuring that training reaches those who need it most.

All in all, these findings suggest that training and professional development in Lesotho's HEIs must evolve from one-off, optional initiatives into a structured, continuous, and inclusive framework that empowers both lecturers and students. The next theme relates to lack of clear institutional policies and support.

5.2.2.4 THEME 4: INSTITUTIONAL POLICIES AND SUPPORT

In relation to the question of whether institutional policies support blended learning, participants indicated a significant gap in how policies around blended learning are designed, communicated, and enacted. It should be noted that policies that are clear, inclusive, and consistently enforced can provide a supportive framework while those that are weak often discourage lecturers from adopting blended learning approaches.

Some lecturers indicated that the policies lack clarity and enforcement. To be precise, Participant 6 reported that:

> *Policies generally support blended learning. But the issue is they don't specify which platforms can be used apart from the institutional one. Some platforms are recommended informally, but there's nothing clearly written in policy.* (P6)

In contradiction, Participant 9 asserted that:

> *The policies are never shared. We are just informed that we should sometimes teach online. There is no proper guidance, and we are left to interpret what blended learning means in practice.* (P9)

This shows that while blended learning may be acknowledged as part of policy in certain institutions, other lectures do not have full access to the institutional policies which leave them stranded regarding whether they should employ it or not. One other observation is that the lack of specificity in terms of platforms to use in engaging the students is an area of grave concern and this leaves lecturers unsure how to implement blended learning. It is fair to conclude that without clear policy guidelines, lecturers are forced to rely on informal practices or personal judgement which results in fragmented and inconsistent teaching approaches across different departments.

Still on the availability of policies influencing the adoption of blended learning, Participant 3 raised a point that the policies still predominant favour the physical component of blended learning:

> *In my university, the current policies pay more attention to physical classes than online platforms. I am saying this because there are a lack of resources and a lack of teachers' training programmes on technology, which shows the policy focus is still unclear. I do not remember a time when we were assembled as lecturers and trained on issues of blended teaching and learning.* (P3)

Looking at this comment, from this institution, lecturers will rarely adopt blended learning practices as the university is still silent and does not offer training or any kind of support. This therefore shows that the institution is left behind in creating an environment conducive for the 21st century teaching and learning. There is a likelihood that most students, because the university prioritises face-to-face instruction, will lack the digital skills needed to survive in the present digital space.

The remarks by Participant 3 resonate with what Participant 6 from a public institution reported:

> *Part-time lecturers are not given full access to university tools like Turnitin and Thuto. This leaves us with the hard task of finding ways to teach without institutional support and this makes the whole policy framework feel selective and unclear.* (P5)

What is conveyed in this assertion is that unclear policies also translate into inequitable practices. Excluding part-time staff from key institutional tools not only reduces the quality of blended teaching but also creates a two-tier system among lecturers. Such inconsistencies undermine the credibility of institutional policies and highlight the lack of inclusivity in their application.

Some participants further indicated that blended learning was mostly practised during the COVID-19 pandemic. When expressing this viewpoint, Participant 1 said:

> *At my institution, during COVID we were trained only on Google Classroom. It was very minimal and since then there has not been follow-up training. As a result, many lecturers are left to figure things out on their own, which means some never fully adopt blended learning practices.* (P1)

This statement shows that institutional commitment to blended learning was largely reactive rather than strategic because the participant clearly indicates that training was provided in response to the emergency, but without long-term planning or follow-up. Based on this evidence, blended learning became a temporary coping mechanism instead of being embedded into the institutional culture, leaving lecturers without the support needed to sustain digital practices beyond the crisis. As a follow up, Participant 11 claimed:

> *For us, the department just informs us that we should sometimes teach online. There is no structured policy behind it, and most of the time we only use online methods when circumstances force us to. This happened mostly during Covid-19 period.* (P11)

This claim elaborates how blended learning in this institution is treated as an optional or emergency response rather than a planned instructional approach adopted and included in the policy frameworks. This assertion further postulates that it is at the discretion of the lecturers to use blended learning because there is no enforcement, particularly by the department or faculty concerned. As a result, this leads to inconsistency in the department and weakens the legitimacy of blended learning as a viable and sustainable teaching strategy.

Moving on, other lecturers believe that for blended learning to be effectively implemented, there should be a strong support system from the institution. In line with this, however, there was an indication that there is a lack of support of perhaps incentives or rewards given to the lecturers who try their best to adopt blended learning in their teaching practices. In support of this view, Participant 1 stated that:

> *There are minimal incentives for lecturers to innovate with online learning as one of the critical components of blended learning…. We are expected to adapt to blended learning however, there are no rewards, recognition, or encouragement for the extra effort it requires.* (P1)

Along similar lines, Participant 4 was in accord with Participant 1 and said as follows:

> *Yes, we need proper training. Our institution has a Centre for Teaching and Learning that supports lecturers and students…. I think more effort should be made to encourage everyone to attend, maybe through recognition or certification because now there are trainings organised but only a few lecturers attend* (P4).

What is being expressed by these participants is that even when training opportunities exist; participation can be low unless there are clear incentives. The participants believe that certificates of completion, recognition in promotion decisions, or professional development credits could motivate staff to engage more actively. This denotes that absence of such mechanisms signals that institutions view blended learning as optional, leaving lecturers to prioritise traditional teaching methods.

Strengthening this argument on lack of appreciation and motivation from the institutions, it was echoed by Participant 7 that:

> *The institution provides very little in terms of motivation. We are told to integrate technology but nothing is given back to support us for the extra work. This makes blended learning feel like an added burden instead of a valued teaching strategy.* (P7)

This observation indicates that the absence of incentives translates into negative perceptions of blended learning. Instead of seeing it as an opportunity to enhance teaching and learning, lecturers view it as an additional workload imposed without corresponding benefits. The next theme focuses on the lack of student motivation and engagement in blended learning mode.

5.2.2.5 THEME 5: STUDENT MOTIVATION AND ENGAGEMENT

Another major barrier identified by participants was the declining motivation and engagement of students in blended learning environments. Lecturers noted that some students struggle with sustaining interest, managing time effectively, and actively participating in online activities. They indicated that the shift from traditional face-to-face instruction to blended methods requires greater self-discipline and initiative, yet not all

learners possess these attributes. Emphasising on students' decrease in motivation in blended learning classes, Participant 5 said:

> *It is challenging to keep students consistently motivated in online discussions. Many of them remain passive, and only a few contribute meaningfully.* (P5)

Similarly, Participant 10 reported that:

> *Some learners avoid participating in forums altogether. They prefer waiting for face-to-face sessions instead of engaging in digital discussions where they feel less confident* (P10).

These reflections demonstrate that online forums and discussions which are designed to foster interaction often fail to achieve their purpose. Students' passivity may stem from low confidence, technophobia, or a lack of accountability in digital spaces. The result is that the collaborative and critical-thinking benefits of blended learning are limited to a small group of active participants, while the majority disengage.

In addition, lecturers raised the point of poor time management as a critical barrier to the success of blended learning. Supporting this, Participant 9 stressed:

> *Poor time management among students is one of the biggest challenges. Some students postpone tasks until the last minute, and when there are connectivity issues, they end up failing to submit altogether.* (P9)

Furthermore, due to high flexibility offered by the blended learning mode, it was reported by some of the participants that this causes students to mismanage their time. In relation to this, Participant 4 expounded:

> *Flexibility sometimes encourages procrastination. Students delay studying until deadlines are near, and when technical problems arise, they cannot cope.* (P4)

These observations by Participants 9 and 4 emphasise that flexibility, which is often cited as a strength of blended learning, can become a weakness for undisciplined learners. Without strong time management skills, students misuse the autonomy of blended learning, leading to rushed assignments, missed deadlines, and lower-quality

engagement. This shows that institutions must complement flexibility with coaching in self-regulation and accountability.

The lecturers also revealed that in as much as blended learning in the context of Lesotho has drawbacks, there are other paramount opportunities brought by the adoption of blended learning practices in their institutions. The findings of the lecturers in relation to the prospects are presented in Table 5.7 below and further elaborated. In total, there were four themes that emerged.

Table 5.7: Themes and Codes - Lecturers' views on Prospects of Blended Learning

THEME	SUB-THEME (CODES)
Flexibility and Accessibility of Learning	Learning at Own Pace
	Reduced Travel and Cost Barriers
	Balancing Academic and Personal Commitments
Enhanced Student Engagement and Autonomy	Independent and Self-directed Learning
	Active Participation through Digital Platforms
	Collaborative Learning & 21st century skills
Innovative Teaching Practices	Diversified Teaching Methods
	Tracking Student Progress

5.2.2.6 THEME 6: FLEXIBILITY AND ACCESSIBILITY IN LEARNING

One of the most prominent opportunities of blended learning identified by participants was its ability to provide flexibility and accessibility for students. Unlike traditional face-to-face approaches that confine students to strict schedules and physical classrooms, lecturers reported that blended learning allows them to manage their learning more independently. This flexibility reduces barriers of time, distance, and cost, making higher education more inclusive for students with diverse circumstances. Supporting the fact that blended learning offers convenience, Participant 2 elucidated:

> *One thing I have observed about blended learning is that there is a lot of flexibility and as such it allows students to learn at their own pace and revisit materials as needed.* (P2)

As articulated by Participant 2, it shows that all the learners with different abilities are accommodated as BL allows for a self-paced learning. In addition, the asynchronous nature of blended learning suggested here indicates that students' retention is strengthened as they are not forced to keep up with the faster pace of a live lecture. Expounding on this, one participated stated:

> *For me I think blended learning helps students to be independent and take responsibility for their learning…. Students can gather a lot of information which they later share during class time making the interaction richer and more meaningful.* (P7)

The emphasis given by this participant provides further enlightenment that the value of flexibility lies in promoting autonomy. Students come to class better prepared, which transforms lessons into participatory dialogues instead of one-way delivery. This leads to deeper engagement and peer learning. On a similar note, some participants, in support of the self-paced learning offered by blended learning, said:

> *It allows students to pause, rewind, and re-watch lectures. This helps them understand difficult concepts better than in traditional classes where the lecturer cannot always repeat everything.* (P11)

The other crucial aspect mentioned by the lecturers is that travel costs are reduced and this why blended learning is convenient. Clarifying this perspective, Participant 3 reported:

> *In as much as blended learning comes with many drawbacks, especially in a country like Lesotho, I have seen that it has reduced the travelling expenses of the students. In this programme where I teach, we used to have physical classes and students would travel from as far as Mokhotlong just to attend a 2-hour lecture….* (P3)

This quotation highlights how blended learning eases the economic burden on students, particularly those from rural and remote regions. Adding on this, Participant 8 accentuated that:

> *Some students prefer coming only during holidays because travelling regularly is expensive. The flexibility of blended learning allows them to keep learning while reducing costs and long trips.* (P10)

In addition, one participant viewed it this way:

> *Flexibility allows learners from remote areas to manage their schedules more effectively. Instead of losing time commuting, they can invest it in studying and preparing assignments.* (P7)

This account emphasises time efficiency. It also indicates that blended learning not only saves money but also grants learners more productive hours for academic work, which strengthens their performance.

Another aspect that allows for flexibility and accessibility in blended learning is the ability of the students to balance academic and personal life. As observed by several participants, the adult or part-time students are given an opportunity to study while busy at work. Adding to this, Participant 5 remarked:

> *Blended learning encourages self-directed learning. Students can fit their academic work around jobs or family commitments, which makes it more realistic for adult or part-time learners.* (P5*)*

What is underscored by this participant is that blended learning accommodates diverse student populations, particularly working adults, and part-time learners, by recognising their dual responsibilities. A similar argument was raised by Participant 9:

> *Students enjoy personalised learning and the chance to work at their own pace. For many, this flexibility is the only way they can balance education with other responsibilities.* (P9)

In this comment, the focus is on flexibility as a balancing act. This indicates that education becomes accessible to those who might otherwise be excluded due to rigid schedules, allowing them to pursue academic goals alongside personal obligations. Another participant observed that:

> *Blended learning helps students avoid conflicts between lectures and family responsibilities because it gives them the freedom to manage both without sacrificing one for the other.* (P1)

Taken altogether, the findings from lecturers demonstrate that flexibility and accessibility are among the strongest prospects of blended learning. It has been highlighted that students benefit from the ability to learn at their own pace, revisit material, and manage personal or professional commitments without compromising education. The reduction on travel and accommodation costs makes higher education more affordable, especially for rural and disadvantaged learners, while flexible scheduling enables adult and part-time students to balance work, family, and study. The next theme is enhanced student engagement and autonomy.

5.2.2.7 THEME 7: ENHANCED STUDENT ENGAGEMENT AND AUTONOMY

Another promising aspect of blended learning mentioned by some lecturers was its ability to enhance student engagement while simultaneously promoting essential skills. Unlike traditional methods that often limit students to passive roles, several lecturers contended that blended learning promotes autonomy, collaboration, and the development of competencies such as digital literacy and problem-solving. Participants noted that students are better prepared, more active, and able to gain transferable skills that extend beyond the classroom. Consistent with this, it was noted by several participants that:

> *Blended learning helps students to be independent and take responsibility for their learning. They can gather a lot of information which they later share during class time.* (P9)

What is highlighted by Participant 9 is that blended learning allows for self-directed learning. In support, Participant 7 stated:

> *Students get used to finding information themselves. It trains them to be critical thinkers rather than waiting for everything from the lecturer.*

This further reinforces the idea that blended learning brings that autonomy, and this allows students to be critical thinkers because they are given more time to digest the

content presented to them. To further support the view that blended learning offers personalised learning to students, it was noted by Participant 1 that:

> *Personalised learning is possible because students can engage with materials at different times. This allows them to set their own pace and hold themselves accountable.* (P1)

The comment reinforces the idea of responsibility. Interestingly, students who manage their own time and workload develop maturity and self-discipline, essential qualities for both academic and professional growth.

Other participants noted that collaborative and interactive learning is promoted as a result of adopting blended learning practices in their classrooms. To be precise, it was recorded that:

> *…It is easier to involve students in group activities online…. Forums and chats give everyone a chance to contribute even the shy ones.* (P10)

A similar assertion was made by Participant 5:

> *Online platforms help us to encourage group work. Students form study groups where they solve problems together and later present outcomes in class.* (P5)

In these submissions, blended learning is shown to create peer-to-peer collaborations. Students learn not only from their peers but from their lecturers as well, and this deepens understanding and develops teamwork skills.

In continuation, some participants further reported on the importance brought by the discussion groups created:

> *Discussions become more interactive when students post online before class. The classroom then becomes a continuation of those conversations rather than starting from scratch.* (P8)

This reflects how blended models extend interaction beyond physical time constraints. Students remain engaged before and after class, creating continuity in their learning.

A participant also indicated that blended learning helps students to acquire critical 21st century skills:

> *Blended learning gives students exposure to digital tools that they will use in the workplace. It prepares them with skills beyond the subject matter.* (P6)

This demonstrates that blended learning not only transmits academic content but also equips learners with transferable digital competencies that enhance employability.

Supporting this, Participant 2 remarked:

> *Students gain confidence in using technology. They learn to communicate digitally, manage tasks online, and even troubleshoot small problems themselves.* (P2)

Other 21st century skills that participants highlighted were collaboration and communications skills. This comment below shows that blended learning promotes interpersonal and professional skills which make students to be market-ready.

> *Blended learning promotes collaboration and communication skills. When students work together online, they develop teamwork that is essential for their careers.* (P5)

5.2.2.8 THEME: 8 INNOVATIVE TEACHING PRACTICES

Another positive theme that emerged from the interviews was the potential of blended learning to promote innovation in teaching practices. Lecturers explained that digital platforms expand the pedagogical toolkit, and this allows them to diversify delivery methods, experiment with new approaches, and enhance assessment and feedback processes. Lecturers indicated that blended learning opens up opportunities for lecturers to integrate multimedia resources, create interactive learning experiences and engage students in more dynamic ways, which is not so common in traditional teaching. Commensurate with the idea that blended learning allows lecturers to diversity their teaching methods, Participant 7 stated:

> *Blended learning enables me to use videos and simulations to explain concepts that would otherwise be abstract in class. Students understand faster when they see visual examples.* (P7)

This shows that blended learning transforms teaching from a text- and lecture-based practice into a multimodal experience. Videos and simulations bridge the gap between theory and practice, thereby enhancing comprehension by making learning concrete and engaging. Participant 4 further explained that in his classroom, he uses different techniques such as uploading YouTube content to further give students a wide variety of learning materials. The main reason he does this is to extend classroom teaching beyond fixed time slots. He explained:

> *In my classes, sometimes I upload YouTube links or record my own explanations. Students find it useful because they can replay them when revising for exams.* (P4)

Some lecturers further pointed out that the presence of LMS in their institutions has made it easy for them to diversify their teaching practices. Participant 6 elaborates:

> *Using the LMS, I can upload PowerPoint slides, quizzes, and even podcasts. It diversifies how students engage with content instead of relying only on lectures.* (P6)

This demonstrates that digital platforms encourage variety in instructional design, creating multiple entry points for learners. Such diversification caters to different learning preferences and increases inclusivity.

One other important aspect raised by the lecturers was the issue of being able to track and monitor the progress of the students in blended learning environments. They mentioned that blended learning allows for effective formative assessment to be given to the students. In particular, the lecturers cited that giving students online quizzes provides prompt feedback which allows them to cater their teaching to the needs of the students. Consistent with this, Participant 8 vocalised:

> *Blended learning allows me to give students online quizzes before class. This helps me know where they struggle, so I prepare the next lesson accordingly.* (P8)

Additionally, other lecturers pointed out that:

> *Digital assessments make marking easier. I can grade assignments online and the system gives immediate feedback to students on quizzes.* (P2)

The points raised speak to lecturers giving students timely feedback which enhances motivation and learning. Also, it could be suggested that blended learning reduces a lot administrative work from lecturers as the feedback can be provided right after assessment. There are different forms of online assessment that most lecturers talked about. For instance, Participant 10 established that in her class, she sometimes gives polls to the students. She mentioned:

> *I sometimes use online polls during lectures.* (P10)

These polls make students participate more and show me instantly whether they are following or not. Again, polls capture student attention and provide real-time feedback on comprehensions.

5.2.2.9 THEME 9: BEST PRACTICES FOR LEARNER SUPPORT

To collect data on the best practices for learner support **(RQ4)**, lecturers were also asked questions to fully understand this matter, and four themes emerged as presented in Table 5.8.

Table 5.8: Themes and Codes - Data on Best Practices for Learner Support in Blended Learning

THEME	SUB-THEMES (CODES)
1. Effective Communication and Feedback	Clear and regular updates, multi-channel communication (LMS, WhatsApp, email, Zoom), timely feedback
2. Access to Inclusive Learning Resources	Organised LMS content, offline/printable resources, diverse formats (audio, video, text)

3. Academic, Technical, and Psychosocial Support	Student training on digital literacy, IT helpdesks, peer mentorship, encouragement, addressing technophobia
4. Institutional Flexibility and Policy Support	Flexible deadlines, blended assessments, subsidised data packages, inclusive policies, lecturer training

Sub-Theme 1: Effective Communication and Feedback

Effective communication and timely feedback emerged as one of the most critical best practices for supporting learners in blended learning. Since students often study remotely and depend heavily on digital platforms, their success relies on how consistently lecturers communicate instructions, updates, and guidance. Equally, prompt, and constructive feedback reassures students, keeps them motivated, and helps them monitor progress. Participants repeatedly stressed that communication must be multi-channelled and inclusive. Correspondingly, it was conveyed by Participant 7 that he sends regular reminders to students as a way of trying to keep constant communication and encourage effective learning. Participant 2 further emphasised the value of regular updates and communication. The participants stated as follows:

> *I usually remind students of assignments and deadlines through both WhatsApp and the LMS because not all of them log in frequently. Multiple reminders keep them engaged.* (P7)

> *I use announcements and emails to update students on course changes. When communication is clear, there are fewer misunderstandings and students perform better.* (P2)

Some students may not regularly access the LMS due to technical challenges but platforms like WhatsApp and emails extend reach and reduce the risk of disengagement. The use of reminders also reinforces accountability and maintains consistent interaction. The remarks by Participant 2 further reveal that constant communication and clarity of information have a positive correlation to the academic performance of the students.

Ambiguity creates confusion and therefore lecturers should try to be clear in their communication with students.

Furthermore, Participant 1 noted that:

> *Students become demotivated when there is no feedback. They need to know quickly if they are on the right track, otherwise they lose focus.* (P1)

Feedback is mentioned as a motivational tool in this context because without it, findings like this one indicate that students feel disconnected and left out hence losing their confidence in digital learning. Emphasising the importance of prompt feedback in blended learning, Participant 10 stated:

> *I have realised that students ask more questions online than they do in class. When I respond quickly, students feel supported and become more active in discussion.* (P10)

This continues to show how important feedback is to the online students. It is worthy to note that lecturers' responsiveness validates students' inquiries, and this encourages them to engage deeply and regularly.

This theme shows that students require regular updates delivered across multiple platforms to remain engaged and informed. At the same time, they depend on timely and constructive feedback to sustain motivation and measure their progress. The next theme is access to inclusive learning materials.

Sub-Theme 2: Access to Inclusive Learning Resources

Lecturers mentioned access to inclusive learning resources as another essential best practice for learner support in blended learning. It was indicated that because students face challenges such as limited connectivity, unreliable electricity and diverse learning needs, institutions must ensure that course materials are well-organised, easy to navigate and available in multiple formats. Several lecturers reported that inclusive resources reduce barriers by giving students more than one way to access knowledge, thereby supporting both equity and quality in higher education.

When stressing the importance of structured and organised content, Participant 3 specified that clear organisation of the materials used enhances accessibility, reduces confusion, and improves students' ability to take control of their learning. He avowed this way:

> *When I upload slides, notes, and recordings on the LMS in a structured way, students find it easier to revise…. The way materials are organised there makes a big difference in how they manage their studies.* (P3)

On the other hand, materials should be inclusive. Some lecturers linked inclusivity to access challenges. Others believe that students especially those who have internet connection problems and cannot join synchronous classes, should be given offline or printable resources. This is premised on the fact that if they are provided with the printed materials, it prevents the students from being disadvantaged and excluded from blended learning practices. This is how Participant 9 puts it:

> *Not all students can be online all the time. Providing printable notes or offline materials helps those who live in areas with poor internet.* (P9)

Another interesting issue raised by participants relates to the diversity of materials for blended learning. Lecturers reported that students vary in how they process information, and blended learning provides an opportunity to accommodate these differences by using text, audio, video, and visuals to promote understanding. In support of this, Participant 1 asserted:

> *I try to prepare materials in different formats like audio explanations for those who prefer listening, and slides for those who prefer reading…. It caters for different learning styles.* (P1)

This statement emphasises the multimodal resource design. Another important aspect is that inclusivity is not only about format but also about timeliness. Participants noted that even well-prepared materials lose value if they are delivered late and this leaves students underprepared. It was argued by Participant 5 that timely provision ensures that learners can engage continuously rather than reactively. She stated:

When resources are uploaded late or not shared, students complain that they cannot prepare. Timely availability of content is as important as the content itself. (P5)

Overall, these findings disclose that inclusive learning resources are central to ensuring equity in blended learning. As reported by the participants, structured, and organised content makes studying manageable, offline, and printable materials accommodate connectivity challenges, and multimodal formats address diverse learning preferences. Equally, timeliness in resource provision is vital for supporting continuous engagement. Without all the mentioned inclusive practices, blended learning risks reinforcing inequalities by privileging students with better access to technology. One may contend that institutions must therefore prioritise the design, organisation, and delivery of resources that are both accessible and inclusive to support all learners effectively.

Sub-Theme 3: Academic, Technical, and Psychosocial Support

Beyond content delivery, lecturers accentuated that blended learning requires deliberate strategies to guide students academically, provide technical assistance, and offer psychosocial support to keep learners motivated. These three dimensions: academic, technical, and psychological are interconnected and together form the backbone of effective learner support in blended environments. In relation to academic support, the three comments below summarise what most lecturers hinted:

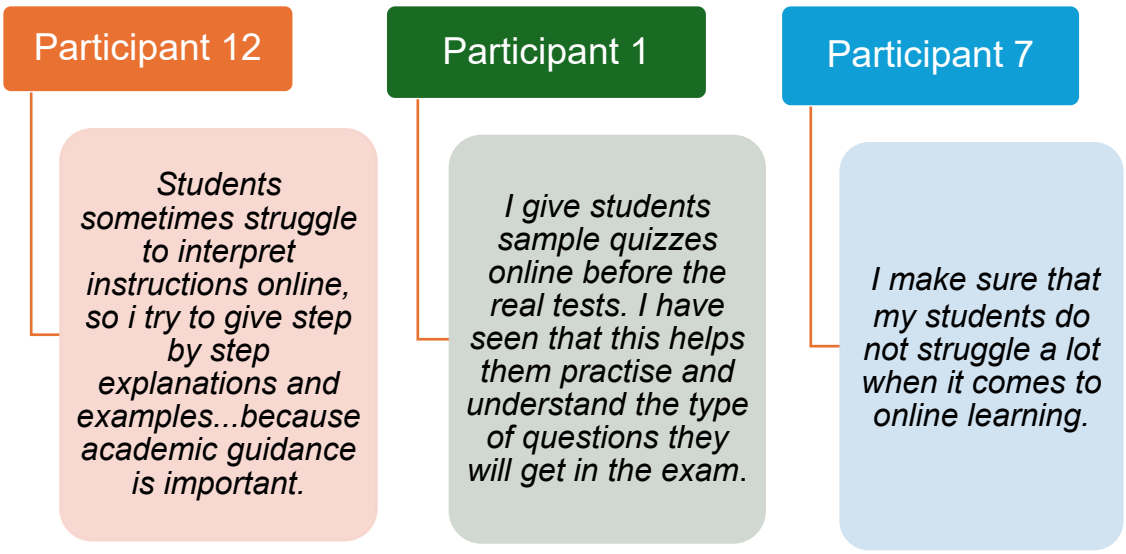


Figure 5.3: Lecturers' Comments on Academic Support

The participants' comments on academic support emphasise that in blended learning, students require more structured guidance than in face-to-face environments. It was noted by Participant 12 that clear instructions and step-by-step explanations prevent misinterpretation of tasks. Again, the findings reveal that the use of practice quizzes provides learners with a safe space to prepare and gain confidence before formal assessments. Both strategies highlight the need for scaffolding that compensates for the reduced immediacy of in-person interactions.

However, regarding technical support, lecturers pointed out its significance in ensuring the success of blended learning. Without it, lecturers argued that students may be excluded before they even reach the academic content. It has been observed by many interviewed lecturers that technical scaffolding ensures inclusivity by equipping students with skills to access and use platforms effectively. Participant 10 echoed this:

> *Students lack basic ICT knowledge. I sometimes must guide them step by step on how to log in, submit assignments, or join Zoom sessions.* (P10)

In addition to this, some lecturers put emphasis on institutional responsibility. They indicated that support systems must be responsive and accessible, since technical problems are inevitable in digital environments. Quick intervention maintains learner confidence and prevents disengagement as reported by Participant 6:

> *…we have an IT helpdesk, but it should be more visible. Students need quick assistance when systems fail, otherwise they lose motivation to continue online.* (P6)

Beyond academic and technical support, emotional reassurance is critical in sustaining learner engagement in blended learning. Participants have shown that many students enter blended environments with anxieties about the use of technology, uncertainty about their abilities and feelings of isolation. For instance, Participant 6 said:

> *I mostly offer psychosocial support sessions and group students according to their learning styles… by doing this I encourage them to keep going and it reduces the stress of blended learning.* (P6)

Another participant noted:

> *Some students feel isolated when they are learning online. I make it a point to check in with them regularly, so they don't feel forgotten.* (P1)

Students who feel disconnected or forgotten are more likely to disengage, lose motivation, and eventually drop out. By making a deliberate effort to check in regularly, lecturers reassure students that they are not navigating the course alone even in digital spaces. These small acts of presence such as sending reminders, acknowledging contributions, or simply asking how students are coping create a sense of community and belonging. This not only counters the isolation common in online learning but also builds trust, strengthens relationships, and fosters persistence among students who might otherwise withdraw.

Another Participant added on the value of psychosocial support. She asserted:

> *Encouragement is important. Even small messages like 'well done' or 'keep it up' make students feel valued and give them confidence to continue.* (P7)

In this scenario, psychosocial support is linked directly to motivation. Positive reinforcement even in small doses, strengthens students' self-belief and commitment, sustaining engagement over time.

Sub-Theme 4: Institutional Flexibility and Policy Support

The final theme that emerged from the data highlights the role of institutions in creating policies and structures that support blended learning. Lecturers were unanimous that the effectiveness of blended learning ultimately depends on whether institutions provide supportive policies, flexible systems, and equitable resources. Lecturers emphasised the importance of flexible deadlines, blended assessments, affordable internet access, and continuous professional development for staff. They believe that institutional mechanisms create the enabling environment within which blended learning can flourish. Participant 8 expounds:

> *Flexibility is needed in terms of deadlines and submission modes. Some students face network failures, so allowing them to submit through email or WhatsApp prevents them from being disadvantaged.* (P8)

This quotation illustrates how rigid deadlines and single mode submissions can exclude students who face connectivity challenges. This further shows that by offering flexible submission channels, institutions acknowledge the realities of students' lives and prevent technical setbacks from turning into academic penalties. Such practices ensure fairness and strengthen student persistence.

Another participant noted:

> *I believe that Institutions should provide subsidised data bundles or negotiate with service providers…. Without affordable internet, blended learning will always disadvantage those from poor families.* (P2)

In this instance, Participant 2 shows that institutional responsibility is linked directly to equity. Since access to affordable data is a prerequisite for online participation, institutions that fail to provide it inadvertently reinforce socio-economic inequalities. Subsidised internet support would not only level the playing field but also demonstrate commitment to inclusivity. However, another participant noted that:

> *Assessment should combine both online and face-to-face elements. Relying only on one mode is unfair, especially when not all students have the same access to technology.* (P11)

This comment emphasises the importance of blended assessment models. Lecturers indicated that by diversifying assessment approaches, institutions can accommodate differences in connectivity and access, while also ensuring that evaluation captures a broader range of student skills. Blended assessment therefore serves as both a fairness mechanism and a pedagogical strategy.

Some participants further emphasised the importance of Continuous Professional Development:

> *There should be continuous training for lecturers. Once-off workshops are not enough. Institutions must prioritize professional development, so we remain confident in teaching online.* (P4)

This reflection underscores that institutional policies must include sustained investment in lecturer training. Without ongoing professional development, blended learning becomes fragile, as staff lack the confidence and competence to integrate technology consistently. Continuous training ensures that lecturers remain adaptive and innovative in their approaches.

The evidence confirms that institutional support is not optional but foundational to the success of blended learning. Flexibility in deadlines and assessment methods prevents exclusion, while affordable internet access addresses socio-economic disparities. At the same time, continuous lecturer training ensures that staff are equipped to implement blended approaches with confidence. Without these institutional commitments, blended learning risks being experienced unevenly, benefitting only those with resources while excluding disadvantaged learners. The results from the quantitative study are discussed in the next section.

5.3 RESULTS FROM QUANTITATIVE STUDY (DATA SET C)

To provide a balanced perspective on research findings regarding blended learning in Lesotho's higher education institutions, it was important to include student voices. The descriptive statistics, including frequency counts, percentages, mean, and standard deviation were used to analyse the students' quantitative data. As stated in Chapter 4, the adapted Community of Inquiry questionnaire consisted of 34 items covering teaching, cognitive and social presence. All the 34 items showed a high level of reliability calculated using Cronbach Alpha (Annexure 9). Before the main analysis of the items in the questionnaire, the demographic profiles of the participants are presented. IBM SPSS Version v28 was used to analyse the data which answered this research question:

- **RQ3:** *How do students perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?*

5.3.1 Demographic Variables of the Study

The demographic description is centred on the students' gender, age, qualification, number of years in a blended learning environment and the type of institution in which the students are enrolled. The demographic information presented in this section pertains to the 152 students who responded to the questionnaire. The gender distribution shown in Table 5.9 reveals that female respondents (65%) were more represented than males (35%) in most categories. This pattern indicates a higher level of engagement by women in blended learning experiences.

Table 5.9: Distribution of Gender among the Respondents

Gender	Frequency	Valid Percentage (%)
Female	99	65
Male	53	35
Total	**152**	**100**

Age Distribution

The results presented in Table 5.10 below indicate that the largest proportion of respondents were aged between 31 and 40, which accounted for 53.29%, followed by those under 30 (21.05%) and 41 – 50 years old (19.74%). The category with the lowest number of participants was in the age group of 50 and above, and accounted for only 5.92%.

Table 5.10: Age Distribution among the Respondents

Age Group	Frequency	Valid Percentage (%)
Less than 30	32	21.05
31-40	81	53.29
41-50	30	19.74
Over 50	9	5.92
Total	**152**	**100**

Academic Qualifications

In terms of educational attainment, as portrayed in Table 5.11, most respondents held a Diploma (59.3%), while Secondary/High School qualifications accounted for 30.3%. A smaller share held degrees (9.87%), while certificate holders were the least represented (0.66%). These results highlight the dominance of diploma-qualified respondents in the study population.

Table 5.11: Qualifications of the Respondents

Qualification	Frequency	Valid Percentage (%)
Certificate	1	0.66
Degree	15	9.87
Diploma	90	59.2
Secondary/High School	46	30.3
Total	**152**	**100**

- ***Years of Experience in Blended Learning***

According to Table 5.12, the distribution of years of engagement in blended learning shows that two years of experience was the most common across all age groups as it

accounted for 66.9%. Fewer participants 12.7% reported three years of experience, while only 0.7% indicated more than four years. This demonstrates that blended learning is still relatively new with most respondents having limited exposure.

Table 5.12: Respondents Years of Experience in Blended Learning

Years in Blended Learning	Frequency	Valid Percentage (%)
1 year	30	19.7
2 years	102	66.9
3 years	19	12.7
More than 4 years	1	0.7
Total	**152**	**100**

Type of Institution

The results presented in Table 5.13 indicate that most students were affiliated with public universities, which accounted for 100 respondents (65.8%). In contrast, private universities represented a smaller share with 52 respondents (34.2%). This distribution highlights the dominance of public institutions in blended learning, which reflects the broader higher education landscape in Lesotho where public universities enrol a larger student population compared to private institutions.

Table 5.13: Type of Institution

Institution Type	Frequency	Valid Percentage (%)
Public University	100	65.8
Private University	52	34.2
Total	**152**	**100**

5.3.2 ANALYSIS OF THE COMMUNITY OF INQUIRY SURVEY DATA

The following themes emanate from the Community of Inquiry survey data involving 152 learners in public and private higher education institutions in Lesotho.

5.3.2.1 THEME 1: TEACHING PRESENCE

Design and Organisation

To begin with, the analysis of teaching presence focused on the extent to which lecturers designed and organised their courses in a way that facilitated blended learning. Four survey items were used to assess this construct, and the findings show consistently high levels of student agreement, with mean scores ranging from 4.10 to 4.20 on a five-point Likert scale (Table 5.14) (Annexure 2).

In relation to the first item, students strongly endorsed the clarity with which lecturers communicated important course topics, as reflected in the mean score of 4.17 (Std = 1.17). More than half of the respondents (50.7%) strongly agreed with this statement and a further 35.5% agreed, while only a small minority disagreed (3.9%) and (7.9%) also further strongly disagreed with the statement. Out of 152 students, 2% remained neutral. These results suggest that in as much as a small group experienced some difficulty, students generally felt confident that lecturers made course topics clear.

The second item, *"The lecturers clearly communicated important course goals"*, had a mean score of 4.16 (Std = 1.10), with 46.7% strongly agreeing and 39.5% agreeing. Table 5.14 further reports that 4.6% maintained a neutral stance with 2% disagreeing and 7.2% strongly disagreeing. The relatively lower standard deviation indicates stronger consensus among students. These results denote that most students perceived lecturers as successful in helping them understand the aims of their courses.

The third item, *"The lecturers provided clear instructions on how to participate in course learning activities"*, received the lowest mean within the construct (M = 4.10, Std = 1.18). While most students (83.6%) strongly agreed or agreed, about 11% disagreed and the remaining 5.3% were neutral. This expresses that although instructions were generally viewed as clear, some students felt that guidance on participation could have been improved.

On the last item, *"The lecturers clearly communicated important due dates/timeframes for learning activities"*, was rated highest with a mean of 4.20 (Std = 1.10). As indicated in

Table 5.14 below, over 85% of students strongly agreed or agreed, and only a few disagreed (2.6%). The remaining 6.6% indicated that they strongly disagreed and 5.3% were undecided. These results demonstrate that students were most satisfied with the way lecturers managed and communicated timelines, which appears to be a strength in blended course delivery.

Table 5.14: Students' Responses on Design and Organisation

Items		SA	A	N	D	SD	Mean	Std
1. The lecturers clearly communicated important course topics.	Count	77	54	3	6	12	4.17	1.17
	n (%)	50.7	35.5	2.0	3.9	7.9		
2. The lecturers clearly communicated important course goals.	Count	71	60	7	3	11	4.16	1.10
	n (%)	46.7	39.5	4.6	2	7.2		
3. The lecturers provided clear instructions on how to participate in course learning activities.	Count	70	57	8	14	13	4.10	1.18
	n (%)	46.1	37.5	5.3	2.63	8.6		
4. The lecturers clearly communicated important due dates/timeframes for learning activities.	Count	77	53	8	4	10	4.20	1.10
	n (%)	50.7	34.9	5.3	2.6	6.6		

SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree, Std=Standard Deviation

Facilitating Discourse

The facilitation of discourse was measured using six items and the results, as presented in Table 5.15, generally show positive student perceptions although levels of agreement varied across specific aspects of facilitation. For the first item, the results were mixed. As shown, 30.1% of the students (n=152) strongly agreed that lecturers were helpful in identifying areas of agreement and disagreement. This was further strengthened by 31.1% of the students who agreed. This indicates that majority of the students were in favour of this item. Lastly, a significant minority either disagreed (9.3%) or strongly disagreed (16.6%). The mean score of 3.53 (Std = 1.43) was the lowest within this construct, suggesting that although many students recognised lecturers' efforts to

highlight agreements and disagreements, others did not perceive this practice as consistently present.

The second item received a stronger positive response compared to the first one. Nearly half of the students (44.1%) strongly agreed and 36.9% agreed, while only a small minority either disagreed (5.3%) or strongly disagreed (7.2%), while 6.6% showed uncertainty. The mean score of 4.05 (Std = 1.17), shown in Table 5.15, suggests that most students felt guided in their understanding, with relatively fewer negative perceptions compared to the first item. A closer look at the third item exhibits that it was highly rated with 44.8% strongly agreeing and 40.1% agreeing. Only 6% of students were neutral while 9.3% expressed disagreement. The mean score of 4.14 (Std = 1.08) reflects that students generally perceived lecturers as effective in maintaining engagement and dialogue with limited disagreement overall.

Furthermore, pertaining to item four in Table 5.15, the majority again responded positively. A total of 42.1% strongly agreed and 43.4% agreed, with only 2.6% disagreeing and 6% strongly disagreeing. Neutral responses accounted for 9%. The mean of 4.13 (Std = 1.05) demonstrates that students valued lecturers' ability to keep them on task, though a very small group reported otherwise. The fifth item also showed strong positive perceptions. A combined 83.5% of students strongly agreed or agreed, while only 1.3% disagreed and 6.6% strongly disagreed. The mean score of 4.14 (Std = 1.08) implies that lecturers were largely successful in stimulating exploration of new concepts, with only a few students holding negative views.

Lastly, on facilitation, the sixth item received the highest ratings. A total of 46.1% strongly agreed and 38.2% agreed. Those who disagreed accounted for 3.3%, while those who strongly disagreed comprised 5.3%. The neutral position was occupied by 7.2%. The mean score of 4.16 (Std = 1.06) indicates that students generally believed lecturers played an important role in creating a sense of community within blended learning contexts.

Table 5.15: Students' Responses on Facilitating Discourse

Items		SA	A	N	D	SD	Mean	Std
1. *The lecturers were helpful in identifying areas of agreement and disagreement on course topics that helped me to learn.*	Count	46	53	13	14	25	3.53	1.43
	n (%)	30.1	35.1	8.6	9.3	16.6		
2. *The lecturers were helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.*	Count	68	56	10	8	11	4.05	1.17
	n (%)	44.1	36.9	6.6	5.3	7.2		
3. The lecturers helped to keep course participants engaged and participating in productive dialogue.	Count	68	61	9	5	9	4.14	1.08
	n (%)	44.8	40.1	6	3.3	6		
4. The lecturers helped keep the course participants on task in a way that helped me to learn.	Count	64	66	9	4	9	4.13	1.05
	n (%)	42.1	43.4	6	2.6	6		
5. The lecturers encouraged course participants to explore new concepts in this course.	Count	68	59	13	2	10	4.14	1.08
	n (%)	44.7	38.8	8.6	1.3	6.6		
6. Lecturers' actions reinforced the development of a sense of community among course participants.	Count	70	58	11	5	8	4.16	1.06
	n (%)	46.1	38.2	7.2	3.3	5.3		

SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree, Std=Standard Deviation

Direct Instruction

As reflected in Table 5.16, the final component of teaching presence focused on direct instruction which captures how lecturers provided guidance, feedback, and timely support to students. Three items were included in this construct and the results demonstrate high levels of agreement across all measures. The first item was rated positively by most students. Out of the sample (n=152), more than half (50.7%) strongly agreed and 35.5% agreed, while only a small proportion either disagreed (3.9%) or strongly disagreed (7.9%), and 2% were undecided. The mean score of 4.17 (Std = 1.17) confirms that

students generally felt lecturers were effective in keeping discussions relevant, though the standard deviation shows that some variation in experience existed.

The second item from Table 5.16 also received strong positive responses. Nearly half (47.4%) strongly agreed and 38.8% agreed, while a small minority disagreed (2.6%) or strongly disagreed (5.9%). The mean score of 4.19 (Std = 1.07) reflects that students valued the feedback provided by lecturers, which they perceived as helpful in identifying areas of strength and weakness. Lastly, on the last item, over half of the respondents (54.6%) strongly agreed and 29% agreed. Only 4% disagreed and 6.5% strongly disagreed. The mean score of 4.21 (Std = 1.15) also manifests that students generally perceived lecturers as responsive in giving timely feedback.

Table 5.16: Students' Responses on Direct Instruction

Items		**SA**	**A**	**N**	**D**	**SD**	**Mean**	**Std**
1. *The lecturers helped to focus discussion on relevant issues in a way that helped me to learn*.	Count	77	54	3	6	12	4.17	1.17
	n (%)	50.7	35.5	2.0	3.9	7.9		
2. *The lecturers provided feedback that helped me understand my strengths and weaknesses relative to the course's goals and objectives.*	Count	72	59	8	4	9	4.19	1.07
	n (%)	47.4	38.8	5.3	2.6	5.9		
3. *The lecturers provided feedback in a timely fashion.*	Count	83	44	9	6	10	4.21	1.15
	n (%)	54.6	29	5.9	4	6.5		

SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree, Std=Standard Deviation

5.3.2.2 THEME 2: SOCIAL PRESENCE

Social presence sought to understand how students experience a sense of belonging, interpersonal connection and, most importantly, their interaction in blended learning environments. The three categories of social presence: effective expression, open communication and group cohesion are presented in the next section.

Affective Expression

It is apparent from Table 5.17 that results generally reveal positive perceptions. Looking at the first item tabulated, a total of 40.1% strongly agreed that knowing participants in the course gave them a sense of belonging. A further 39.5% of students agreed. Those who opted for the neutral response accounted for 9.2%, while 5.9% and 5.3% reported that they disagreed and strongly disagreed respectively. The mean score of 4.03 (Std = 1.10) shows that most students felt a sense of belonging although not all the experiences were universal as the data reveal that there were those who were undecided and those who totally disagreed.

Table 5.17: Responses of Students on Affective Expression

Items		SA	A	N	D	SD	Mean	Std
1. *Getting to know other course participants gave me a sense of belonging in the course.*	Count	61	60	14	9	8	4.03	1.10
	n (%)	40.1	39.5	9.2	5.9	5.3		
2. I was able to form distinct impressions of some course participants.	Count	78	56	6	4	8	4.26	1.03
	n (%)	51.3	36.8	3.9	2.6	5.3		
3. Online or web-based communication is an excellent medium for social interaction.	Count	51	73	14	6	8	4.00	1.03
	n (%)	55.6	48	9.2	3.9	5.2		

SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree, Std=Standard Deviation

Similarly, the second item, *"I was able to form distinct impressions of some course participants"* (Table 5.17) received the highest ratings within this construct. For example, more than half of the respondents (51.3%) strongly agreed and 36.8% agreed, with very few neutral (3.9%), disagreeing (2.6%), or strongly disagreeing (5.3%). The mean of 4.26 (Std = 1.03) reflects a strong perception that students were able to establish impressions of their peers and this highlights that interpersonal recognition occurred effectively in the blended setting.

The last item, *"Online or web-based communication is an excellent medium for social interaction"*, was also rated positively. Like the second item, more than half of the

respondents (55.6%) strongly agreed with the statement and 48% agreed. On the other hand, 9.2% were neutral, 3.9% disagreed, and 5.2% strongly disagreed. The mean score of 4.00 (Std = 1.03) shows that students valued online communication as a medium for social interaction even though a small minority did not share this view. The next data focus on open communication.

Open Communication

The open communication construct examined the extent to which students felt comfortable expressing themselves and interacting with peers in the blended learning environment. Three items measured this construct, and the results show consistently strong levels of agreement as presented in Table 5.18.

Table 5.18: Results of Students on Open Communication

Items		**SA**	**A**	**N**	**D**	**SD**	**Mean**	**Std**
1. I felt comfortable communicating through the online medium.	Count	73	52	10	7	10	4.13	1.15
	n (%)	48	34.2	6.6	4.6	6.6		
2. I felt comfortable participating in the course discussions.	Count	84	48	8	2	10	4.28	1.09
	n (%)	55.3	31.6	5.3	1.3	6.6		
3. I felt comfortable interacting with other course participants.	Count	82	50	9	3	8	4.28	1.04
	n (%)	54	32.7	6	2	5.3		

SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree, Std=Standard Deviation

The first item was rated positively by most respondents. In particular, 48% expressed greater support as they strongly agreed they felt comfortable with online communication. The other positive results indicated 34.2% of students who agreed. The neutral responses accounted for 6.6% while disagree and strongly disagree were smaller proportions with 4.6% and 6.6% respectively. This mean score of 4.13 (Std = 1.15) implies that students generally felt at ease using online platforms for communication.

In relation to whether students felt comfortable participating with others, most respondents gave it a bigger endorsement. To be precise, out of 152, 55.3% strongly agreed and 31.6% agreed. Again, only a smaller percentage (1.3%) disagreed and 6.6% strongly disagreed while 5.3% were neutral. The mean score obtained (4.28) indicates high confidence among students taking part in online discussions while a few showed resistances.

The third item, *"I felt comfortable interacting with other course participants"*, produced similarly high results. A total of 54% strongly agreed and 32.7% agreed, while 6% were neutral, 2% disagreed, and 5.3% strongly disagreed. The mean score of 4.28 (Std = 1.04) reflects that most students found interaction with peers comfortable. The next category of social presence discussed is group cohesion.

Group Cohesion

Group cohesion explored how students experienced trust, acknowledgement, and collaboration in the blended learning environment. Three items measured this construct and the results as presented in Table 5.19 indicate moderately strong positive perceptions with some areas showing room for improvement.

Looking at the first item presented, most students endorsed it strongly. For instance, more than half (52.6%) strongly agreed with another 33.6% positively agreeing. Smaller proportions of students had a negative perception towards this item. To be precise, 3.3% disagreed and 4.6% strongly disagreed. Those who were not sure constituted 5.9% of the sample (Table 5.19). The mean score of 4.26 (Std = 1.03) shows that most students felt they could collaborate with peers in an atmosphere of trust while a few of them expressed negative views.

Coming to the second item, there were mixed responses. While 30.3% strongly agreed and 36.2% agreed, a relatively larger proportion of students were neutral (21.7%), and 11.8% disagreed or strongly disagreed. The mean score of 3.79 (Std = 1.12) was the lowest in this construct and therefore suggests that while many students felt acknowledged, a significant number were less certain or felt their views were not always recognised in blended learning.

The third item, *"Online discussions help me to develop a sense of collaboration"*, was positively perceived. A total of 32.2% strongly agreed and 52.6% agreed, while 7.9% were neutral and 2.6% disagreed and the remaining 4.6% strongly disagreed. The mean score of 4.05 (Std = 0.96) indicates that students generally believed online discussions supported collaboration with limited variation in responses. The next section presents results pertaining to cognitive presence as another construct of the study.

Table 5.19: Students' Results on Group Cohesion

Items		SA	A	N	D	SD	Mean	Std
1. *I felt comfortable participating with other course participants while still maintaining a sense of trust.*	Count	80	51	9	5	7	4.26	1.03
	n (%)	52.6	33.6	5.9	3.3	4.6		
2. I felt that my point of view was acknowledged by other course participants.	Count	46	55	33	9	9	3.79	1.12
	n (%)	30.3	36.2	21.7	5.9	5.9		
3. Online discussions help me to develop a sense of collaboration.	Count	49	80	12	4	7	4.05	0.96
	n (%)	32.2	52.6	7.9	2.6	4.6		

SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree, Std=Standard Deviation

5.3.2.2 THEME 3: COGNITIVE PRESENCE

Within the Community of Inquiry Framework, cognitive presence captures how students engage intellectually with course content, from the initial triggering of curiosity to deeper exploration, integration of ideas, and eventual resolution of problems. The first analysis done is on the triggering event.

Triggering Event

The triggering event construct examined the extent to which problems, activities, and questions in the blended learning environment stimulated student curiosity and motivation to engage with course content. As reflected in Table 5.20, three items measured this construct, and the results demonstrate generally strong positive perceptions.

Table 5.20: Students' Results on Triggering Event

Items		SA	A	N	D	SD	Mean	Std
1. Problems posed increased my interest in course issues	Count	91	43	6	5	7	4.36	1.03
	n (%)	59.9	28.3	3.9	3.3	4.6		
2. The course activities were very interesting	Count	49	75	12	8	8	3.98	1.05
	n (%)	32.2	49.3	7.9	5.3	5.3		
3. I felt motivated to explore content related questions.	Count	82	50	8	4	8	4.28	1.05
	n (%)	54	32.9	5.3	2.6	2.6	5.3	

SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree, Std=Standard Deviation

According to Table 5.20, the first item received the highest ration. It can be observed that 59.9% of students strongly agreed that lecturers posed problems that increased their interest to participate in blended learning. Another 28.3% of the students agreed with the statement with 3.9% maintaining neutrality. Those who disagreed accounted for 3.3% together with 4.6% strongly disagreeing. The mean score of 4.36 indicates that problems posed in the course successfully stimulated student interest. In addition, the standard deviation of 1.03 suggests that responses were consistent, with most students clustering around agreement and few reporting negative experiences.

In relation to the activities of the course, a largely positive rating was issued. Here, 32.2% strongly agreed and 49.3% agreed, while 7.9% were neutral, 5.3% disagreed and the other 5.3% strongly disagreed. The mean of 3.98 attests that students generally found the activities engaging but not as strongly as the problems posed. On the other hand, the standard deviation of 1.05 indicates a moderate spread in responses, reflecting that although many students enjoyed the activities, some were less convinced.

Concerning the motivation to learn in blended learning, a total of 54% strongly agreed and 32.9% agreed, while only2.6% disagreed with 2.6% strongly disagreeing. The standard deviation of 1.05 shown in Table 5.18 affirms a consistent trend of agreement although with only a minor variation in how strongly students felt motivated. The mean

score of 4.28 reflects strong motivation among students to pursue content-related questions. The next construct analysed is exploration.

Exploration

The exploration construct examined how students engaged in information-seeking, brainstorming and discussion to expand their understanding of course content. Three items measured this construct, and the results reflect strong positive perceptions across all indicators as depicted in Table 5.21 below.

Table 5.21: Results of Students on Exploration

Items		SA	A	N	D	SD	Mean	Std
1. *I used different information sources to explore problems posed in this course.*	Count	85	52	3	5	7	4.34	1.01
	n (%)	56	34.2	2	3.2	4.6		
2. *Brainstorming and finding relevant information helped me resolve content-related questions.*	Count	83	54	4	5	6	4.34	0.98
	n (%)	54.6	35.5	2.6	3.3	4		
3. Online discussions were valuable in helping me appreciate different perspectives.	Count	70	64	7	4	7	4.22	0.99
	n (%)	46.1	42.1	4.6	2.6	4.6		

SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree, Std=Standard Deviation

As represented in Table 5.21, the first item regarding different information sources received mostly positive responses. Among the respondents, 56% strongly agreed and 34.2% agreed while only 7.8% expressed disagreement and 2% reported neutrality. The mean score of 4.34 (Std = 1.01) confirms that students actively drew on diverse resources to explore problems posed in blended learning.

For the second item about brainstorming, more than half of the students (54.6%) strongly agreed and 35.5% agreed, with less than 10% falling into the neutral or disagreement categories. The mean of 4.34 affirms that students widely perceived brainstorming and information searching as helpful for problem-solving. The relatively low standard deviation

of 0.98 demonstrates that responses were consistent, with strong consensus among participants. Lastly, the third item, *"Online discussions were valuable in helping me appreciate different perspectives"*, received slightly lower but still strong ratings. In total, 46.1% strongly agreed and 42.1% agreed, while 7.2% were neutral and less than 8% disagreed. The mean score of 4.22 depicted in Table 5.21 confirms that online discussions contributed positively to students' appreciation of diverse viewpoints.

Integration

The integration construct measured the extent to which students combined new information, engaged in learning activities, and reflected on course content to develop deeper understanding. It was measured with three items as shown in Table 5.22.

Table 5.22: Students' Results on Integration

Items		SA	A	N	D	SD	Mean	Std
1. Combining new information helped me answer questions raised in course activities.	Count	77	59	4	4	8	4.27	1.02
	n (%)	50.7	38.8	2.6	2.6	5.3		
2. Learning activities helped me construct explanations/solutions.	Count	75	62	4	4	7	4.28	0.98
	n (%)	49.3	40.8	2.6	2.6	4.6		
3. Reflection on course content and discussions helped me understand fundamental concepts in this class.	Count	85	53	5	3	6	4.37	0.95
	n (%)	55.9	34.9	3.3	1.9	4		

SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree, Std=Standard Deviation

The first item under this component of cognitive presence shows that 50.7% of the students strongly agree and 38.8% agree, while 2.6% were undecided and a similar percentage disagreed. It was also noted that 5.3% strongly disagreed. The mean score of 4.27 together with the standard deviation of 1.02 endorse that students felt confident in applying new information to course questions asked in blended learning environments.

Equally, the second item about learning activities according to Table 5.22 shows that a total of 49.3% strongly agreed and 40.8% agreed, while less than 10% reported neutral or negative views. The mean of 4.28 reflects that students widely perceived learning

activities as effective for building explanations and solutions. Lastly, on the third item, more than half of the students (55.9%) strongly agreed and 34.9% agreed, with only 6.2% disagreeing or remaining neutral. The mean score of 4.37 demonstrates that reflection was particularly effective in supporting students' understanding of core concepts.

Resolution

The resolution construct assessed the extent to which students were able to test, apply, and transfer knowledge gained through blended learning. Three items were included, and the results reveal strong agreement across all indicators, with only small groups expressing neutrality or disagreement.

As illustrated in Table 5.23 below, for the first item, nearly half of the students (48%) strongly agreed and 42.8% agreed, while only 4.6% were neutral and less than 7% expressed disagreement. The mean score of 4.27 indicates that students generally felt confident in applying knowledge gained from the course. The standard deviation of 0.98 indicates that responses were consistent, with little variation in students' views. In relation to the second item, a total of 50.6% strongly agreed and 38.8% agreed, while 2% disagreed and 3.3% strongly disagreed. The mean of 4.26 demonstrates that students perceived themselves as capable of generating practical solutions from course problems. The slightly higher standard deviation of 1.03 indicates a minor variation in responses, but consensus remained strong.

Lastly, the third item, *"I can apply the knowledge created in this course to my work or other non-class related activities"*, received slightly lower, though still favourable ratings. Table 5.23 shows that 43.3% strongly agreed and 42.8% agreed, while 4.6% were neutral and about 9% disagreed. The mean score of 4.16 reflects that students largely felt able to transfer knowledge beyond the classroom, though to a somewhat lesser extent than testing and applying it within course contexts. The standard deviation of 1.01 suggests that views were consistent, with most students in agreement.

Table 5.23: Results of Students Regarding Resolution

Items		SA	A	N	D	SD	Mean	Std
1. I can describe ways to test and apply the knowledge created in this course.	Count	73	65	4	2	8	4.27	0.98
	n (%)	48	42.8	4.6	1.3	5.3		
2. I have developed solutions to course problems that can be applied in practice.	Count	77	59	3	5	8	4.26	1.03
	n (%)		50.6	38.8	2	3.3		
3. I can apply the knowledge created in this course to my work or other non-class related activities.	Count	66	65	7	8	6	4.16	1.01
	n (%)	43.3	42.8	4.6	5.3	4		

SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree, Std=Standard Deviation

5.3.3 Summary of the Results on Community of Inquiry Survey

The quantitative results demonstrate that students generally experienced strong teaching presence in their blended learning courses. Across the three sub-constructs of design and organisation, facilitation, and direct instruction, mean scores were consistently above 4.0 on a five-point Likert scale, which suggested positive perceptions overall. Furthermore, students reported that lecturers communicated course topics, goals, and due dates effectively, and they valued the clarity of organisation in their courses. Facilitation was also well received, with students indicating that lecturers kept them engaged on task, and encouraged exploration of new ideas. The weakest area under teaching presence was the identification of areas of agreement and disagreement during discourse, which attracted more mixed responses. Nonetheless, direct instruction was highly endorsed, especially in relation to the timely and constructive feedback provided by lecturers.

With regard to social presence, the findings highlight that students felt a strong sense of connection and comfort when interacting in blended learning environments. They reported that getting to know peers and forming impressions of them contributed to belonging, while open communication was perceived positively, with most students

comfortable contributing to discussions and interacting with others. Group cohesion was also evident, particularly in the trust students expressed when collaborating. However, the acknowledgement of individual viewpoints by peers emerged as relatively weaker, with a notable proportion of students neutral on this aspect. Overall, social presence was positively rated although it displayed slightly more variation compared to teaching presence.

The analysis of cognitive presence also revealed that students engaged meaningfully with content through all four phases: triggering event, exploration, integration, and resolution. Problems posed in the courses increased student interest, and brainstorming and reflection were considered effective for deeper learning. Students also highlighted that combining new information, reflecting on discussions, and applying knowledge to real-life contexts supported their understanding. Across these phases, mean scores consistently exceeded 4.0, with relatively low standard deviations, showing strong consensus that blended learning created curiosity, critical thinking, and practical application of knowledge.

5.4 CHAPTER SUMMARY

This chapter presented an analysis of the empirical findings of the study derived from the three primary data sources: national and institutional documents, semi-structured interviews with lecturers, and student questionnaires. Using both qualitative and quantitative approaches, the chapter responded directly to the first four research questions, each addressing a distinct dimension of blended learning in Lesotho's higher education institutions. The integration of these methods enabled the researcher to obtain a holistic understanding of how blended learning is conceptualised, implemented, and experienced at different levels of the system from policy design to classroom practice and learner perception.

The first section focused on document analysis, which addressed Research Question 1. It examined the nature and extent of blended learning as articulated in national and institutional policy documents. The findings revealed that blended learning is widely

recognised as a strategic priority for enhancing access, quality, and flexibility in higher education. However, policy statements often lacked operational clarity, detailed implementation plans, and clear quality assurance mechanisms. While documents such as the Higher Education Policy (2013) and the Digital Transformation Policy (2024) demonstrated strong conceptual commitment, their practical application within institutions was inconsistent. This gap between policy intent and institutional readiness set the context for the subsequent analyses.

The second section presented findings from lecturer interviews which provided lecturers' perceptions and lived experiences of implementing blended learning. The thematic analysis revealed that lecturers viewed blended learning as both necessary and beneficial for expanding learning opportunities. Nevertheless, they identified multiple barriers, including unreliable internet connectivity, inadequate training, limited institutional support, and insufficient digital infrastructure. Despite these constraints, many lecturers displayed creativity and resilience, using personal resources and digital tools to engage learners.

The final section of the chapter presented the quantitative results from student questionnaires, guided by the Community of Inquiry (CoI) Framework. Students reported high mean scores for teaching presence, social presence, and cognitive presence, indicating generally positive experiences with blended learning. They appreciated clear course organisation, timely feedback, and the opportunity to apply learning to real-world contexts. However, they also expressed a desire for more interactive and collaborative activities, suggesting that while teaching and cognitive presence were well established, social presence required further development.

The next chapter (Chapter 6) therefore moves beyond description to interpretation, drawing on the CoI and UTAUT frameworks to discuss the interconnections among these findings. The chapter also identifies key areas of convergence and divergence and helps with the formulation of a comprehensive understanding of how blended learning can be strengthened and institutionalised across the sector.

CHAPTER 6

DISCUSSION OF FINDINGS

"If we knew what we were doing, it wouldn't be called research, would it?"
Albert Einstein

6.1 INTRODUCTION

The study explored the possibilities of blended learning in higher education institutions in Lesotho. The previous chapter presented the findings of the qualitative study and the results of the quantitative study. This chapter presents a discussion of the major findings derived from the three data sets: document analysis, semi-structured interviews, and the student questionnaire. The purpose is to interpret how the evidence collectively explains the current state of blended learning in higher education institutions (HEIs) in Lesotho. To avoid duplication, findings from the documents and interviews are merged because they both reflect the institutional and policy environment, while the questionnaire findings are discussed separately to illuminate students' perspectives through the Community of Inquiry (CoI) Framework. It should be remembered that the CoI framework is the main theory used to underpin the study with the Unified Theory of Acceptance and Use of Technology used as a complementary theory (UTAUT) (Venkatesh et al., 2003).

As previously explained, the study employed the mixed-methods convergent parallel design where data are converged to understand the areas of convergence and divergence. The study sought to answer the following research questions:

1) What is the nature of blended learning in higher education institutions in Lesotho?
2) How do lecturers perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?
3) How do students perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?
4) Which best practices for learner support in blended learning are required within Lesotho's higher education institutions?

5) Which comprehensive guidelines can be developed to assist lecturers in facilitating the effective implementation of blended learning in higher education institutions in Lesotho?

6.2 DISCUSSION OF KEY FINDINGS FROM DOCUMENTS ANALYSIS AND INTERVIEWS

The synthesis of findings across the two data sources produced several recurring and complementary themes that describe the conditions shaping blended learning in Lesotho's HEIs. These main themes were identified:

1. Conceptualisation of blended learning
2. Infrastructure and institutional support
3. Digital literacy and competence
4. Training and professional development
5. Student support, motivation, and engagement
6. Flexibility, accessibility, and inclusivity
7. Innovative teaching and pedagogical change.

Themes 1 to 4 are mainly derived from the documents and lecturer interviews, whereas themes 5 to 7 are illuminated further through the student questionnaire. Together, these themes provide a picture of both structural readiness and lived experiences of blended learning implementation in Lesotho. The key themes below collectively respond to question 1 (Document analysis) and questions 2 and 4 (Lecturers' interviews).

6.2.1. Conceptualisation of Blended Learning

The analysis of documents revealed that there is an uneven conceptualisation of blended learning across the policy documents in Lesotho. CHE (2013) was explicit in defining blended learning as a combination of face-to-face, distance, and e-learning, providing the clearest articulation of its meaning at the national level. By the same token, Institution C's

teaching and learning policy aligned with international scholarship by describing blended learning as “the thoughtful integration of online and physical education,” echoing Graham’s (2006) and Garrison and Vaughan’s (2008) emphasis on purposeful design.

In contrast, the ODL Draft Policy (2022) implied blended approaches through its commitment to modular and flexible learning but without naming them explicitly. The Digital Transformation Policy (2024) situated blended learning within broad digitalisation goals giving little pedagogical guidance. Institution A also fell into this ambiguous category by referencing LMS use and flexible delivery, but never explicitly defining blended learning.

Similarly, lecturers expressed diverse and sometimes conflicting understandings of what blended learning entails. For some participants, blended learning simply meant incorporating online elements into their traditional teaching, such as uploading notes on a Learning Management System (LMS) or conducting occasional virtual sessions when face-to-face meetings were not possible. Others described it as a more deliberate pedagogical model that integrates digital tools, learner-centred strategies, and continuous interaction to enhance flexibility and engagement (Mokenela, 2019). Garrison and Vaughan (2008) argue that blended learning should represent a deliberate pedagogical integration of online and face-to-face modalities aimed at enhancing interaction and reflection rather than simply the coexistence of technologies

A few lecturers perceived blended learning primarily as an emergency response introduced during the COVID-19 pandemic rather than a sustainable instructional approach. These varying interpretations reveal that blended learning remains conceptually fluid and locally constructed within Lesotho’s higher education landscape shaped by each lecturer’s exposure, institutional support, and technological confidence. This inconsistency mirrors what Oliver and Trigwell (2005) and Driscoll (2000) found globally that blended learning is often treated as a loose “mix” of technology and traditional teaching rather than as a deliberate pedagogical integration. Similar patterns have been reported across Sub-Saharan Africa.

6.2.2 Infrastructure and Institutional Support

In this study, infrastructural support also appeared as a prominent feature in both national and institutional policy documents. To be precise, the Digital Transformation Policy (2024) outlines ambitious goals such as broadband expansion, 4G/5G connectivity, smart classrooms, and access to devices. As for the ODL Draft Policy (2022), the findings highlighted the need to address inequities in rural access. Nevertheless, earlier frameworks such as the CHE Policy (2013) and the Higher Education Strategic Plan (2013–2018) only gestured towards ICT integration without detailing implementation. Institutionally, Institution B set ICT requirements for students and invested in multifunctional learning spaces, whereas Institutions A and C mentioned LMS access but lacked comprehensive infrastructural strategies.

Furthermore, findings from the lecturers across the institutions studied indicated that unreliable internet connectivity remains the most significant obstacle with frequent disruptions that interrupt lessons, delay assessments, and discourage students from participating in online activities. Lecturers described persistent power cuts that interfere with both face-to-face and online sessions, particularly during the evening when most students access digital materials. As established in the literature, without access to reliable electricity, internet connectivity, and modern ICT tools, the flexibility and accessibility promised by blended learning become unrealistic goals (Mokenela, 2019; Makumane et al., 2023).

Again, the findings correspond closely with the literature presented in Chapter 3 which demonstrates that Lesotho's ICT landscape is still constrained by low broadband penetration and unequal access to electricity. According to the Lesotho Communications Authority (2016; 2017), despite near total mobile coverage, broadband intensity and household access to digital devices remain low, particularly in rural areas. Many higher education institutions face recurring power shortages and network instability with some still operating off-grid through solar energy, limiting their ability to run computers or sustain online teaching environment.

In this study, most participants concurred with the sentiments by LCA (2017) that there is limited access to functional devices for both lecturers and students which caused them to rely on outdated computers that cannot support video conferencing or data-heavy application. Further, the study found that LMS, where available, were poorly maintained and inconsistently used. Several lecturers reported that their institutional LMS frequently crashed, could not accommodate large file uploads, or lacked responsive technical support when faults occurred.

These findings are also consistent with the findings of Mpungose (2020) and Mhlanga (2021) that the availability of infrastructure is a critical component for the success of blended learning initiatives in Africa. The authors argue that without reliable internet connection and the availability of devices for students and lecturers, meaningful implementation of blended learning is impossible. The inadequacy of technological resources has also been linked to disparities in student participation and engagement. Scholars such as Morena et al. (2024) observe that infrastructural deficits across African higher education systems limit students' ability to access online materials and participate in interactive learning, thereby widening the digital divide. This resonates strongly with the situation in Lesotho where lecturers in this study reported that students often depend on mobile phones for accessing learning platforms, resulting in poor navigation experiences and limited functionality for assessments or discussions.

Moreover, the literature indicates that institutional support mechanisms are equally critical in mitigating these infrastructural challenges. Inadequate funding and lack of maintenance policies were identified by the Lesotho Communications Authority (2016) as the most frequent constraints within HEIs, alongside the absence of institutional ICT policies and limited technical staff. The lecturers' concerns in this study therefore reflect systemic issues already documented nationally, particularly the delays in replacing equipment, low bandwidth, and unreliable networks that affect universities' capacity to sustain e-learning initiatives.

From a pedagogical standpoint, this shortage of infrastructure not only affects the technological dimension of blended learning but also weakens the teaching presence within the Community of Inquiry Framework. As elaborated in the reviewed literature,

when lecturers lack consistent access to digital platforms and communication tools, opportunities for facilitation, feedback, and student interaction are severely restricted (Nkhi et al., 2023; Modise & Van den Berg, 2023). This further diminishes both the social and cognitive presence and leads to lower engagement and disorganised learning experiences.

Equally, these findings resonate with UTAUT theoretical framework that underpins this study. Under the construct of facilitating conditions, UTAUT explicitly recognises the availability of resources, technical infrastructure, and support, which directly influences users' ability to integrate technology in the teaching and learning process (Venkatesh et al., 2003). In this sense, Lesotho's policy emphasis on broadband, smart classrooms, and device provision aligns clearly with UTAUT. Yet, at institutional level, weak strategies in some universities show that facilitating conditions are not consistently ensured. In UTAUT terms, this means adoption will remain partial even if lecturers and students perceive blended learning as useful (performance expectancy). Their ability to act on this perception is curtailed by inadequate facilitating conditions.

6.2.3 Digital Literacy and Competence

The findings from national and institutional documents revealed that digital literacy development is formally recognised as a strategic priority for strengthening blended learning in Lesotho's higher education sector. National frameworks such as the Digital Transformation Policy (2024), the CHE Higher Education Policy (2013), and the Open and Distance Learning Draft Policy (2022) collectively emphasise the importance of equipping both students and academic staff with digital competencies to enhance access, participation, and pedagogical innovation. The policies highlight goals such as integrating ICT across programmes, embedding digital literacy into curricula, and supporting staff through continuous professional development. However, while these commitments appear ambitious on paper, the analysis revealed limited evidence of structured implementation mechanisms. Similarly, institutional strategies tended to outline digital competence in general terms without specifying how these skills would be assessed or supported across faculties. This indicates that digital literacy, though rhetorically

prioritised, has not yet been operationalised as a measurable or systematic practice within the higher education system.

Lecturers' accounts further confirmed this gap between written policy and classroom reality. They found that digital literacy remains a major barrier to the practical implementation of blended learning. Participants described wide variations in their confidence and competence in using technology for instruction. To exemplify, several admitted to struggling with basic computer operations like file management, uploading materials to LMS, creating quizzes, and monitoring online participation. This lack of technical fluency resulted in a narrow interpretation of blended learning, where digital engagement was largely confined to uploading lecture notes, sharing documents via email, or communicating through WhatsApp groups. Consequently, digital literacy emerged not only as a technical deficit but as a pedagogical constraint that limits creativity, learner engagement, and the full realisation of the transformative potential of blended learning.

The literature reviewed strongly substantiates these findings. It emphasises that digital competence is a cornerstone of blended learning readiness and that its absence undermines teaching presence, learner autonomy, and cognitive engagement (Zhang et al., 2021). In support of this, studies cited (Nkhi et al., 2023; Modise & Van den Berg, 2023; Ghansah, 2025) observed that lecturers in Lesotho and similar Sub-Saharan contexts often lack both the pedagogical and technical dimensions of digital literacy. Modise and Van den Berg (2023) argue that while many educators possess basic computer skills, they often fall short in designing, managing, and assessing online activities that improve students' higher-order thinking. This resonates with the present findings where lecturers viewed technology primarily as a delivery tool rather than an integral part of pedagogy.

The relationship between digital competence and effective participation in blended learning has also been widely documented in the literature. Studies show that learners who possess strong technological skills are better positioned to exploit the interactive and flexible features of blended environments to improve their academic performance. Gault and Cuevas (2022) observed that the adaptability provided by digital strategies enhances

student achievement by allowing students to personalise their study pace, access diverse resources, and collaborate more meaningfully online. In the same tandem, Akbarov et al. (2018) found that students' perceptions and attitudes towards blended learning are closely linked to their technological proficiency. Those who are confident in using digital tools demonstrate higher levels of readiness, motivation, and willingness to engage with online activities. This suggests that digital literacy not only influences access but also shapes students' cognitive engagement and emotional connection to the learning process.

In the same vein, Smith and Hill (2018) argue that students value the interactivity, immediacy, and flexibility that digital tools afford within blended learning contexts. What these authors suggest is that as students become more confident in navigating online platforms, they are more likely to participate in discussions, collaborate with peers, and seek feedback from lecturers, leading to a more active and self-directed learning experience. Interestingly, these findings reinforce the results of this study which showed that limited digital literacy among both lecturers and students restricts the depth of engagement and interaction possible in blended courses. Consequently, enhancing digital competence across all stakeholders is not only a technical requirement but also a pedagogical necessity since it underpins student autonomy, interaction, and satisfaction as key elements of effective blended learning design.

From the perspective of the UTAUT, the findings of this study strongly support the model's core assumptions that technology adoption is shaped by performance expectancy, effort expectancy, social influence, and facilitating conditions (Molefi et al., 2024). Lecturers' experiences reflected all four constructs. Although they recognised the value of blended learning and perceived it as capable of improving teaching effectiveness (performance expectancy), their limited digital competence and inadequate institutional support reduced its perceived ease of use (effort expectancy). The lack of consistent training and technical assistance further weakened facilitating conditions, while social influence remained minimal, as few peers modelled effective digital practices. Consequently, despite positive attitudes towards technology integration, the absence of skills and environmental enablers constrained actual use. These findings therefore affirm UTAUT's

central claim that adoption of technology is not only a matter of individual intention but also of contextual readiness and institutional support structures that sustain user confidence and continuity.

6.2.4 Staff Development and Capacity Building

The document analysis identified staff development and professional capacity building as one of the most decisive yet underdeveloped dimensions of blended learning implementation in Lesotho. As articulated earlier, CHE Higher Education Policy (2013) recognises continuous professional development (CPD) as essential for successful blended learning, however, it offers no clear accountability mechanism. The ODL Policy (2022) advances the agenda slightly further by urging institutions to invest in staff training for the design, facilitation, and evaluation of digital courses. Another important document analysed was the Digital Transformation Policy (2024) which situates capacity building within broader national digital-skills goals, though not specifically in pedagogical terms. Institutionally, what could be noted from the findings of Institution A and B is that CPD and ICT training initiatives are recommended to improve the lecturer's engagement and competence in blended learning. However, Institution C leaves digital acquisition skills largely to individual initiatives.

From the lecturers' perspective, professional development opportunities are insufficient and inconsistent. Many participants recalled receiving short, one-off workshops on using basic online platforms, but few had access to ongoing mentoring or advanced training that focused on pedagogy, instructional design, or student support in digital environments. Again, several lecturers indicated that the absence of structured professional learning leaves them to rely on peer support or self-learning through experimentation.

Some described feeling "left behind" as technology continues to evolve faster than institutional training provisions. Others expressed frustration that training sessions, when offered, were overly technical and tool-oriented without addressing pedagogical strategies for engaging students online. These findings echo that professional development is often treated as a compliance activity rather than a transformative process that builds confidence, reflective practice, and pedagogical innovation. Institutions with

dedicated teaching and learning centres were exceptions, as lecturers in these environments reported higher confidence and greater willingness to experiment with blended methodologies.

This study confirmed what is already in the literature that the sustainability of blended learning depends on lecturers' digital pedagogical competence rather than mere access to tools (Rasheed et al., 2020). Likewise, there is ample sustenance proposed by Vaughan et al. (2013) that effective teaching presence, as a critical component of the CoI framework, emerges when instructors are trained to design, facilitate, and direct cognitive and social processes purposefully. Another compelling literature presented by Mhlanga (2021) and Krull (2023) attests that in the African context, uncoordinated or once-off training initiatives result in low adoption rates and technophobic attitudes among faculty. The pattern in Lesotho thus parallels regional findings that capacity-building policies are often reactive as they were mainly introduced during crises such as COVID-19 and rarely institutionalised. Another substantial body of research consistently highlights CPD as a decisive factor in the success of blended learning initiatives within higher education. Researchers in the Southern African context, notably Modise (2020) and Ramulumo (2023), emphasise that ongoing professional learning and sustained institutional support are indispensable for lecturers attempting to integrate technology into their teaching. They argue that effective CPD extends beyond one-off workshops and instead nurtures long-term pedagogical change by cultivating both digital competence and reflective practice.

To further substantiate this argument, Modise (2024) specifically notes that in Southern Africa, CPD programmes must integrate pedagogical reasoning with technological fluency; otherwise, lecturers merely digitise old practices rather than transform learning designs. The gaps observed in Lesotho therefore echo a broader continental trend where digital literacy is treated as technical training rather than as reflective, instructional design competence. Evans et al. (2019) maintain that professional development must focus not only on improving lecturers' technical proficiency but also on reshaping their instructional design and classroom interaction strategies to align with students' evolving learning needs in blended environments.

From a UTAUT standpoint, CPD initiatives operate as powerful levers for increasing effort expectancy and performance expectancy. Venkatesh et al. (2003) theorise that individuals are more likely to adopt new technologies when they perceive them as both easy to use and useful, and these perceptions are shaped directly by training quality. Dankers et al. (2022) and Aboagye et al. (2023) corroborate this link through reporting that structured mentoring and peer learning programmes in African universities significantly improved lecturers' willingness to experiment with LMS-based assessment and collaboration tools. In this way, professional development does not merely build skills; it transforms attitudes and creates positive behavioural intention which are the key outcome variables in UTAUT. Thus, the limited and inconsistent CPD observed in Lesotho's policies constrains both motivational and technical readiness for blended learning adoption.

In a nutshell, all these perspectives resonate with the current study's findings which revealed that lecturers who had engaged in ongoing or peer-supported training displayed greater confidence and creativity in using digital tools compared to those with minimal exposure. Therefore, professional development in blended learning should be conceived as a cyclical and evolving process and enables lecturers to adapt continuously as technologies, pedagogies, and student expectations evolve. The integration of structured, ongoing, and contextually relevant CPD is thus central to ensuring both the sustainability and pedagogical depth of blended learning across Lesotho's higher education institutions.

6.2.5 Student Support, Motivation and Engagement

The synthesis of the document analysis and lecturer interviews revealed that student support structures for blended learning in Lesotho's higher education institutions remain weakly institutionalised and inconsistently implemented. Policy documents such as the Digital Transformation Policy (2024), the CHE Higher Education Policy (2013), and the ODL Draft Policy (2022) all acknowledge the centrality of learner support in promoting access, retention, and quality learning outcomes. They call for integrated systems that provide students with academic, technical, and psychosocial assistance across all delivery modes. For instance, the ODL Policy (2024) stands out as the most

comprehensive explicitly outlining learner-centred support such as academic guidance, digital literacy training, and psychosocial assistance. By contrast, the CHE Higher Education Policy (2013) and the Higher Education Strategic Plan (2013–2018) mention student support only in general terms, while the National Digital Transformation Policy (2024) focuses largely on digital inclusion and access, rather than pedagogical or emotional support. At institutional level, Institution B offers structured mechanisms such as tutoring, counselling, and adaptive learning environments (Stenbom et al., 2016; Jaber & Kennedy, 2017). Institution A provides moderate assistance through its Centre for Teaching and Learning and Institution C depends mainly on the LMS for general support without dedicated services.

Lecturers' interviews confirmed this policy–practice disconnection. Participants consistently reported that learner support within blended learning is minimal, informal, and largely lecturer-driven. Most described their efforts to maintain student motivation and engagement as personal rather than systemic. They noted that while they strive to respond to students through email, WhatsApp, or brief consultations, there are no structured e-tutoring units, counselling services, or online help desks to assist students who struggle academically or technically. Nonetheless, Huy et al. (2023) argued that technical support is an essential part of blended learning settings. The technical support includes a range of services such as regular system maintenance through updates and monitoring, tutorials and instructions for using blended learning platforms and IT helplines for troubleshooting as indicated by the findings from the lecturers.

The lecturers further explained that this lack of institutional scaffolding forces them to improvise communication and support mechanisms, often outside formal working hours. In addition, several participants expressed concern that the absence of feedback loops, mentoring systems, or active learning communities leads to declining student participation once initial enthusiasm fades. They emphasised that sustained engagement depends on visible lecturer presence and timely feedback, both of which are difficult to maintain without institutional support and workload adjustments (Karakaya et al., 2020; Tomesko et al., 2022). The lecturers thus portrayed a blended learning landscape that focuses

more on content delivery than on holistic learner support, illustrating that motivation and engagement are by-products of individual dedication rather than organisational design.

From the literature consulted, scholars such as Tait (2014) confirm that student support remains the backbone for effective blended and online learning. Tait (2014) classifies student support into three interrelated dimensions: academic, personal, and administrative. This scholar argues that the effectiveness of open and blended systems depends on all three being intentionally integrated. Rotar (2022) similarly contends that learner support is not an optional service but an intrinsic pedagogical function that promotes retention and motivation in distance and blended environments.

In relation to motivation, scholars such as Tu et al. (2025) and Modise and Van den Berg (2023) underscore that learner support and lecturer responsiveness are vital for sustaining motivation in blended environments. Their studies argue that effective support requires clearly defined institutional frameworks that combine academic advising, technical help, and social interaction. Similarly, Ajani (2023) highlights that many African universities treat student support as a secondary consideration, resulting in poor communication, high attrition, and diminished student morale. The current findings echo these observations: lecturers in Lesotho find themselves operating in isolation without systemic structures for engagement.

In addition, studies by Aboagye at al. (2021) and Mpungose (2020) in African higher education contexts uncovered that when learners perceive adequate support such as reliable help desks, digital orientation sessions, or access to tutors, their behavioural intention to continue using online systems strengthens significantly. Conversely, when students lack training, feedback, or psychosocial assistance, they experience frustration and attrition. In this light, Lesotho's partial approach to student support weakens the broader ecosystem of blended learning by limiting students' confidence, continuity, and technology acceptance. This supports the UTAUT framework as it also illuminates the pivotal role of student support in technology adoption. The facilitating conditions, defined as the degree to which individuals believe organisational and technical infrastructure exist to support system use (Venkatesh et al., 2003), are critical for sustaining student engagement in digital learning.

This motivational dimension of flexibility is also supported by the Community of Inquiry (CoI) Framework which positions collaboration and lecturer presence as central to sustaining engagement (Garrison et al., 2000). Lecturers in this study endorsed this view, noting that when students have ongoing access to both peers and instructors through digital platforms, they feel more connected and supported. The ability to communicate with lecturers beyond scheduled sessions creates a more inclusive and reassuring learning environment; where students can seek clarification, feedback, and additional guidance whenever challenges arise. Such accessibility not only strengthens teaching and social presence but also contributes to continuous motivation by reinforcing students' sense of belonging and accountability within the learning community. Consequently, these findings affirm that flexibility, collaboration, and lecturer accessibility are interdependent pillars of motivation in blended learning and should be systematically embedded in learner support strategies within Lesotho's higher education institutions.

6.2.6 Flexibility, Accessibility, and Inclusivity in Learning

The document analysis shows that both national and institutional policies foreground flexibility and accessibility as cornerstones of inclusive blended learning, but they stop short of specifying how these commitments should be enacted. National frameworks (such as the ODL and Digital Transformation policies) promote flexible study in terms of time, pace, and place, and call for technology to widen participation. Complementing this, institutional teaching and learning policies and related e-learning/LMS guidelines typically pledge learner-centred delivery, continuous online engagement, and equitable access for off-campus and working students. However, across documents, the operational details are thin; few specify minimum LMS standards. The findings from the lecturers echoed this gap, noting that flexibility in their institutions often meant uploading course materials online or allowing deadline extensions rather than embedding true pedagogical adaptability. As a result, accessibility was largely dependent on the goodwill and creativity of individual lecturers rather than on structured institutional frameworks.

The findings from literature substantiates these findings by emphasising that flexibility and inclusivity are defining characteristics of blended learning. Aligned with the observations

of Chiu (2021) and Alsadoon et al. (2022), the flexibility inherent in blended learning emerged as a key motivator for students as it enables them to learn at their own pace and revisit content whenever necessary. By removing the rigidity of fixed schedules and allowing students to access materials asynchronously, blended learning reduces academic anxiety and fosters greater autonomy. Lecturers also recognised that when students are able to manage their study time independently, they develop stronger self-regulation and intrinsic motivation which are vital qualities for success in higher education. The integration of digital tools and online resources further enhances this motivation by giving students the freedom to explore concepts in multiple formats, thereby reinforcing understanding and confidence.

On the other hand, Hrastinski (2019) and Graham (2006) describe blended learning as inherently inclusive, arguing that technology-enabled approaches should accommodate learners with varied needs, abilities, and contexts. Similarly, Mokenela (2019) and Nkhi et al. (2023) point out that the flexibility of blended learning supports diverse learning styles, enabling students to study at their own pace and in different environments, an essential feature for widening participation in resource-limited contexts like Lesotho.

The literature also highlights that flexibility must extend beyond scheduling to include differentiated instruction, assistive technologies, and alternative pathways for participation, particularly for students facing digital or geographic barriers. When these dimensions are ignored, blended learning risks reproducing exclusion rather than addressing it. Further, scholars such as Ayob et al. (2020) and Chowdhury (2020) advocate for flexible models such as the rotation and flex approaches that personalise learning and permit students to progress at their own pace while maintaining access to face-to-face or online support as needed.

These approaches align strongly with the findings from lecturers in this study who reported adapting timetables and utilising asynchronous tools to accommodate rural and working students. In addition, Kumar et al. (2021) note that flexible models promote inclusivity by supporting students who face barriers to classroom attendance, while Dziuban et al. (2018) affirm that such models improve academic performance and engagement when institutions design systems responsive to student diversity. Together,

these scholars underscore that flexibility, accessibility, and inclusivity are mutually reinforcing: flexibility expands opportunities for participation, accessibility ensures equitable engagement, and inclusivity validates the varied experiences of students.

Within theoretical framing, these insights correspond with the *Community of Inquiry (CoI)* model, where flexibility and accessibility enhance social and cognitive presence by allowing students to interact across time and modality (Garrison et al., 2000). They also reflect the UTAUT assumption that user perceptions of ease and facilitating conditions determine adoption and sustained use of technology (Venkatesh et al.,2003). Consequently, promoting flexibility and inclusivity in Lesotho's higher education requires more than technology provision – it demands deliberate pedagogical design, institutional policy alignment, and equitable infrastructural support. As the literature emphasises, inclusive blended learning must be both technologically enabled and contextually responsive, ensuring that no student is left behind in accessing, engaging with, and benefiting from digital education.

6.2.7 Innovative Teaching Practices and Pedagogical Change

The analysis of documents and lecturer interviews revealed a growing awareness that innovation in teaching is central to achieving quality in blended learning, yet in practice such innovation remains limited and uneven across Lesotho's higher education institutions. Institutional and national policies reviewed, which include the CHE Higher Education Policy (2013) and the Digital Transformation Policy (2024), encourage the use of technology-enhanced pedagogies and promote active learning as part of quality assurance and curriculum renewal. However, the findings indicated that these policies provide little concrete direction on how lecturers should innovate in digital spaces. Consequently, innovation is often interpreted individually. Some lecturers experiment with online discussions, interactive videos, or collaborative group work while others rely on static content uploads. The absence of structured institutional incentives and pedagogical support thus constrains the diffusion of new teaching practices and limits the potential of blended learning to transform traditional classroom approaches.

Supporting this view, scholars such as Hrastinski (2019), Graham (2006), and Dziuban et al. (2018) describe innovation in blended learning as the purposeful integration of digital tools with pedagogical intent, rather than the mere addition of technology. They emphasise that meaningful change occurs when technology enables collaboration, reflection, and authentic assessment, leading to deeper learning and student engagement. Kumar et al. (2021) and Ayob et al. (2020) further argue that innovative pedagogies such as flipped learning and rotation models promote student autonomy and continuous feedback, both of which are crucial in motivating students and personalising instruction.

The literature also highlights that pedagogical innovation requires alignment with curriculum outcomes and institutional strategies to ensure consistency and sustainability. Mokenela (2019) observed that in Lesotho, lecturers often adopt technology spontaneously rather than strategically, leading to isolated instances of innovation that fail to influence wider institutional practice. This supports the finding that innovation is primarily lecturer-driven and unsupported by systemic frameworks, limiting its capacity to become a sustained pedagogical shift.

In this regard, innovative teaching aligns directly with the Community of Inquiry (CoI) Framework: digital tools that support active discussion, formative feedback, and peer collaboration strengthen teaching and social presence, which in turn deepen cognitive presence. The findings also resonate with the UTAUT model which highlights that lecturers' willingness to adopt new teaching methods depends on perceived usefulness (performance expectancy) and institutional support (facilitating conditions). Yet these support systems are weak as the lecturers in this study reported.

In short, both the empirical and literature evidence affirms that innovative teaching practices represent the driving force of pedagogical change in blended learning. To realise this potential in Lesotho's higher education, institutions must embed innovation within formal teaching and learning policies, provide structured pedagogical support, and reward creative experimentation. Innovation should be viewed as an ongoing, collaborative process that integrates technological, pedagogical, and reflective

dimensions which enables lecturers to design learning experiences that are interactive, inclusive, and transformative.

6.4 DISCUSSION OF STUDENTS' QUESTIONNAIRE RESULTS

The data collected through the student questionnaire provided critical insights into how students perceive the implementation and experience of blended learning in Lesotho's higher education institutions. The questionnaire was structured around the three components of the Community of Inquiry (CoI) Framework: teaching presence, social presence, and cognitive presence, each of which offers a lens through which students' engagement, interaction, and satisfaction with blended learning can be understood.

6.4.1 Teaching Presence

The quantitative results indicated that students perceived strong teaching presence across their blended learning courses. Many students reported that course objectives were clear and that the structure of blended modules was easy to follow. Students particularly commended lecturers for clearly communicating course objectives, schedules, and expectations. They also appreciated the logical sequencing of topics and the clarity of digital course layouts, which made navigation and task completion easier. Facilitation was similarly well rated with students reporting that lecturers were effective in keeping them engaged, providing direction during activities, and encouraging the exploration of new ideas. Nonetheless, direct instruction – especially the provision of timely, constructive, and personalised feedback – was strongly endorsed as one of the most valued aspects of the blended learning experience.

These results align closely with the Community of Inquiry (CoI) Framework which positions teaching presence as the central unifying element that binds social and cognitive presence together to create meaningful educational experiences (Garrison et al., 2000). Within this model, teaching presence is conceptualised as encompassing instructional design, facilitation, and direct instruction (Anderson et al., 2001); dimensions that correspond precisely with the items measured in the questionnaire. The findings therefore confirm that when lecturers provide clear course organisation and active

facilitation, students perceive the learning environment as more coherent, engaging, and purposeful. This reiterated Fiock's (2020) and Chiroma et al.'s (2021) arguments that effective course design, articulated through structured syllabi, explicit timelines, and accessible materials, enhances learners' ability to manage time, follow instructions, and achieve expected outcomes.

Moreover, consistent with Cleveland-Innes (2018), the findings suggest that teaching presence extends beyond the lecturer's authority to include student agency and peer contribution. Students in this study valued interactive spaces where both lecturers and peers could contribute to the co-construction of knowledge, although such opportunities were limited. This implies that developing a robust teaching presence in blended learning requires balancing lecturer leadership with opportunities for student-led discourse and peer feedback.

6.4.2 Social Presence

Regarding social presence, results revealed that students experienced a generally strong sense of social presence within their blended learning environments. Respondents indicated that they felt connected to their peers and comfortable participating in both face-to-face and online interactions. Many expressed that getting to know fellow students and forming impressions of them created a sense of belonging and trust. Open communication was positively rated, with most students reporting that they felt confident contributing to discussions and responding to peers. Likewise, evidence of group cohesion emerged through students' willingness to collaborate and share ideas during projects or forum activities. However, acknowledgement of differing viewpoints was somewhat weaker; a notable proportion of students provided neutral responses regarding whether their opinions were recognised by others. Overall, social presence was positively rated, though it displayed slightly more variation than teaching presence, suggesting that interactional dynamics in blended spaces are still maturing.

The Community of Inquiry (CoI) Framework positions social presence as a critical element in establishing authenticity and interpersonal connection among participants, creating the emotional foundation for learning (Yusuf et al., 2023). When students feel recognised and

valued, they are more willing to engage in collaborative dialogue and take intellectual risks. As Makumane et al. (2023) observe, social presence mitigates the isolation often associated with online learning by building a supportive sense of community. Junus et al. (2021) similarly highlight that social presence facilitates collaboration, relationship-building, and shared understanding, which are the outcomes clearly reflected in the trust and openness students reported in this study. In addition, Stenbom et al. (2016) emphasise that emotions play a central role in shaping online relationships, suggesting that genuine engagement depends not only on participation but also on empathy and responsiveness. The study's findings echo this insight: while most students interacted freely, the weaker acknowledgement of individual viewpoints indicates that the emotional and relational dimensions of communication still require nurturing.

Richardson and Swan (2019) confirm that high levels of social presence are associated with improved engagement and course satisfaction, validating the positive perceptions reflected in this study's results. Within the Lesotho context, these findings imply that lecturers should design collaborative tasks that encourage interpersonal connection and dialogue such as peer feedback activities, online discussions, and group reflections to consolidate social bonds.

6.4.3 Cognitive Presence

Lastly, the results for cognitive presence revealed that students demonstrated strong cognitive engagement throughout all four phases of the Community of Inquiry (CoI) model: triggering event, exploration, integration, and resolution. Across all related items, mean scores exceeded 4.0 on a five-point Likert scale with low standard deviations, showing a high degree of consensus among students that blended learning environments effectively stimulated curiosity, critical thinking, and knowledge application. Again, students reported that problems and questions presented in their courses heightened their interest and motivated them to explore course content more deeply. They also appreciated that course activities encouraged brainstorming and reflection, enabling them to combine new information with prior knowledge. Many further affirmed that opportunities

to apply theoretical knowledge to practical, real-world contexts enhanced their understanding and sustained engagement.

These results are consistent with the CoI framework's conception of cognitive presence as the process by which learners construct and confirm meaning through sustained reflection and discourse (Garrison et al., 2001). Prior literature establishes cognitive presence as both the most intellectually demanding and pedagogically vital component of the CoI model (Akyol & Garrison, 2008; Modise, 2022). Drawing on John Dewey's theory of practical inquiry, scholars such as Junus et al. (2019), Richardson and Swan (2019), and Swan et al. (2009) note that reflective inquiry entails active, persistent, and careful consideration of information considering prior experiences and new evidence. The students' high ratings for curiosity, exploration, and application reflect precisely this process and show that they were not passive consumers of information but active constructors of understanding. In alignment with Fiock (2020), this demonstrates that blended learning environments which integrate problem-based activities and reflective dialogue can effectively promote critical thinking and deep learning.

Furthermore, Makumane et al. (2023) affirm that cognitive presence plays a significant role in helping students shape their academic identities and learning approaches based on their individual experiences. The current study corroborates this perspective by engaging with diverse digital tasks and reflective discussions, through which students developed a stronger sense of ownership over their learning. This finding reinforces Dewey's view that meaningful education arises when learners engage in inquiry that connects ideas to real-world practice. Therefore, within the Lesotho higher education context, cognitive presence emerges as the intellectual core of blended learning, cultivating reflective, independent, and critically aware learners capable of applying knowledge beyond the classroom. However, it should be noted that sustaining this presence will require continuous support for lecturers in designing inquiry-driven learning experiences, and for students in developing the metacognitive skills necessary for reflection and problem-solving in digital learning environments.

6.5 AREAS OF CONVERGENCE AND DIVERGENCE ACROSS THE THREE DATA SETS

The areas of convergence and divergence for the three data sets are presented in this section.

6.5.1 CONVERGENCE

The three data sets converged strongly in affirming that blended learning is both desirable and essential for improving the quality and accessibility of higher education in Lesotho. Across documents, lecturers and students, there was a shared understanding that blended learning represents a progressive response to challenges of large class sizes, limited infrastructure, and the need for flexible access to education. Policy frameworks such as the Digital Transformation Policy (2024) and institutional teaching and learning strategies conceptualised blended learning as a pathway towards equity and innovation. Lecturers and students echoed this policy vision, noting that integrating technology enhanced flexibility, resource sharing, and learning autonomy. This alignment underscores a shared belief in the potential of blended learning to transform traditional modes of teaching, even if its practice remains uneven across institutions.

A second major area of convergence was the recognition that infrastructure and institutional support remain foundational to the success of blended learning. All three sources consistently identified unreliable internet connectivity, limited access to digital devices, and poorly maintained Learning Management Systems (LMS) as major barriers. Policy documents acknowledged these infrastructural gaps and called for investment, while lecturers and students directly experienced their impact. This convergence highlights a system-wide awareness that effective blended learning cannot occur without adequate facilitating conditions; a key construct within the UTAUT framework. The data thus collectively point to the urgent need for stronger institutional commitment to resource provision, technical assistance, and digital equity.

Finally, the three data sets aligned on the importance of human capacity and learner support in sustaining blended learning. Lecturers recognised the need for continuous professional development to enhance digital pedagogical competence, and students associated effective teaching with clear organisation, responsiveness, and feedback.

Policy documents, likewise, prioritised training and learner support as key strategies. This convergence demonstrates consensus that technology alone cannot improve learning outcomes; rather, success depends on strengthening the teaching, social, and cognitive presences of the Community of Inquiry (CoI) model. Collectively, these shared perspectives reinforce the idea that blended learning is not just a technological reform but a pedagogical and institutional transformation that requires both skilled educators and engaged learners.

6.5.2 DIVERGENCE

Despite broad conceptual alignment, the data revealed several significant divergences between policy intentions, institutional practices, and learner experiences. The most evident gap concerned the implementation of blended learning policy. While national and institutional documents presented blended learning as already embedded within teaching and learning systems, lecturers reported that implementation remained irregular and highly dependent on individual initiative. Students confirmed this discrepancy by noting variability in how blended learning was delivered across modules. This divergence stresses a policy–practice gap. This implies that blended learning is well-articulated in theory but insufficiently operationalised in institutional practice, thus lacking the governance structures, funding, and monitoring mechanisms necessary for systematic adoption.

Another notable divergence related to institutional support and sustainability. Administrators and policy documents pointed to the existence of ICT departments, training programmes, and digital strategies as evidence of institutional readiness. However, lecturers and students described these support systems as inconsistent and reactive. Lecturers frequently noted that training opportunities were infrequent and limited to basic technology use, while technical assistance was often unavailable when problems arose. Students did not directly comment on institutional systems such as e-tutoring or help desks but implicitly reflected similar challenges through their emphasis on the importance of lecturer responsiveness and continuous feedback for maintaining engagement. This divergence reveals that formal support structures exist on paper but

not in practice, confirming the need for institutional accountability and dedicated resources to sustain blended learning.

A third area of divergence emerged in perceptions of pedagogical innovation and interaction. Lecturers viewed their use of digital platforms, PowerPoint materials, and online communication tools as significant steps towards innovative practice, particularly in a context where such approaches are relatively new. Students, however, interpreted innovation more broadly by valuing activities that strengthen collaboration, dialogue, and applied problem-solving. While they appreciated the clarity and organisation of blended courses, they also expressed a desire for richer peer interaction and more opportunities for discussion and inquiry. This indicates that lecturers tend to equate innovation with technological adoption, whereas students associate it with pedagogical interactivity and authentic engagement. The difference reflects varying emphases within the Community of Inquiry Framework: lecturers focus primarily on strengthening *teaching presence* through design and delivery, while students seek enhanced *social* and *cognitive presence* through collaboration and reflection. These contrasts highlight that the true potential of blended learning in Lesotho will be realised only when technological integration is accompanied by pedagogical transformation, moving beyond content upload towards interactive, inquiry-driven learning.

6.6 CHAPTER SUMMARY

This chapter presented a comprehensive discussion of the study's findings, integrating results from the document analysis, lecturer interviews, and student questionnaires through a mixed-methods convergent parallel design. Guided by the Community of Inquiry (CoI) and Unified Theory of Acceptance and Use of Technology (UTAUT) frameworks, the discussion explored how blended learning is conceptualised, implemented, and experienced across Lesotho's higher education institutions. The analysis revealed that blended learning is widely acknowledged in policy as a transformative mode of delivery aimed at improving quality, flexibility, and inclusivity. Lecturers and students echoed this vision, describing blended learning as a practical and necessary innovation for expanding access and promoting more active learning.

However, while enthusiasm for blended learning is clear across all stakeholder groups, its operationalisation remains fragmented, depending largely on individual initiative rather than coordinated institutional systems.

The discussion identified strong areas of convergence among the three data sets. All groups agreed that blended learning holds significant potential for addressing challenges of access, resource limitation, and quality improvement. They further shared the view that infrastructural readiness and continuous professional development for lecturers are indispensable for success. Policy documents, lecturers, and students alike acknowledged the value of flexibility and student support, confirming that effective blended learning requires both technological capacity and human competence.

Nevertheless, the chapter also revealed critical areas of divergence that illustrate gaps between policy ambitions, institutional structures, and classroom realities. While policy documents frame blended learning as institutionally embedded, lecturers described implementation as inconsistent and under-supported, reflecting a persistent policy–practice divide. Institutional support systems were reported as reactive rather than proactive, with lecturers citing limited training and students emphasising the importance of ongoing feedback and engagement. Differences also emerged in perceptions of innovation and interaction: lecturers viewed technology adoption as the primary indicator of progress, whereas students associated innovation with collaboration, dialogue, and inquiry. Collectively, these findings show that blended learning in Lesotho’s higher education is conceptually strong but pedagogically and structurally uneven.

CHAPTER 7

SUMMARY, CONCLUSION AND RECOMMENDATIONS

“Research is creating new knowledge.” Neil Armstrong

7.1 INTRODUCTION

This final chapter presents the culmination of the research process by integrating the main insights, conclusions, and recommendations that emerged from the investigation into the implementation of blended learning in Lesotho’s higher education institutions. Having examined the topic through the lenses of national and institutional policy documents, lecturers’ perspectives, and students’ experiences, this chapter moves beyond analysis to synthesis and application. It provides an overarching reflection on what has been learned from the study, how the findings align with and extend existing theories and what practical measures can be taken to enhance implementation of blended learning. The conclusions offered here respond directly to the study’s overarching purpose which was to explore possibilities for a sustainable, inclusive, and pedagogically effective blended learning system within Lesotho’s unique educational context.

The chapter also outlines the practical guidelines developed to assist lecturers in implementing blended learning effectively, fulfilling the final objective of the study. These guidelines, together with the proposed framework Lesotho – Blended learning Readiness and Implementation Model (L – BLRIM) constitute the applied contribution of the research as it provides a context-specific framework for aligning policy intentions with classroom realities. The latter sections discuss the study’s methodological, policy, and practical implications, acknowledge its limitations, and identify areas for future research.

7.2 OVERVIEW OF THE STUDY

Chapter 1 introduced the study by outlining the background, problem statement, and purpose of exploring blended learning in Lesotho’s higher education institutions. It presented the research questions, objectives, and significance of the study, emphasising

the need to understand how blended learning could enhance access, quality, and flexibility in teaching and learning.

Chapter 2 provided the conceptual and theoretical foundations. Blended learning was defined as the purposeful integration of face-to-face and online modalities to enhance access, flexibility, and quality (Nkhi et al., 2023). The Community of Inquiry (CoI) Framework was used to interpret teaching, social, and cognitive presence while UTAUT explained adoption dynamics via performance expectancy, effort expectancy, social influence, and facilitating conditions. It is worthy to mention that these complementary lenses enabled an integrated reading of pedagogy and technology in context.

Chapter 3 reviewed the literature with a deliberate focus on Southern African and Lesotho. It covered infrastructure and access, digital competence, professional development, learner support, flexible models and inclusivity, and innovative pedagogy. The review exposed a persistent policy practice gap in the region. It was further observed that aspirations to deliver blended learning frequently outpace institutional readiness, training, and learner support. This gap motivated the empirical investigation.

Chapter 4 described the mixed-methods convergent parallel design. Three data strands were collected and analysed in parallel and then integrated: (i) document analysis of national and institutional policies and strategies; (ii) semi-structured interviews with lecturers; and (iii) a student questionnaire aligned to the CoI framework. Integration occurred at the stage of interpretation to identify areas of convergence and divergence across data sets.

Chapter 5 presented the empirical results derived from document analysis, lecturer interviews, and student questionnaires. The findings indicated that while blended learning is conceptually recognised in national and institutional policies, its implementation remains inconsistent across institutions due to infrastructural and capacity challenges. It is undeniable that lecturers valued blended learning although they faced barriers such as limited professional development and institutional support. With regard to students, results reported strong teaching and cognitive presence, developing social presence and a desire for greater collaboration. The analysis further identified key best practices for

learner support which included student motivation, flexibility and inclusivity, and innovative pedagogy.

Chapter 6 provided an in-depth discussion of these findings, analysing them thematically and comparatively across the three data sets. The discussion revealed areas of convergence and divergence in the three sets of data.

Lastly, Chapter 7 draws together these critical insights by presenting the overall conclusions, implications, and recommendations arising from the study. It outlines the practical guidelines developed to assist lecturers in implementing blended learning effectively and discusses how the findings contribute to theory, policy, and practice in Lesotho's higher education system.

7.3 SUMMARY OF LITERATURE REVIEW

The literature review in Chapter 3 traced the global, regional, and national development of blended learning as a pedagogical innovation that integrates face-to-face and online teaching to enhance flexibility, engagement, and access. Scholars such as Garrison and Vaughan (2008) and Graham (2013) define blended learning as the thoughtful integration of traditional and digital approaches rather than a mere technological add-on. In addition, empirical studies in higher education worldwide (Dziuban et al., 2018; Hrastinski, 2019; Fiock, 2020) consistently showed that success depends on strategic course design, lecturer facilitation, and institutional investment in infrastructure. Yet, as Owston (2013) notes, many systems still treat blended learning as an isolated project rather than an embedded teaching modality. This global evidence was convincing enough as it provided the conceptual foundation for understanding how blended learning could be adapted to Lesotho's higher education context where similar aspirations exist but resources remain limited. Consequently, it was revealed in the literature that there is little empirical analysis of how blended learning is conceptually defined and operationalised within Lesotho's national or institutional policies.

In regional and African contexts, the previous research has established that implementation of blended learning is uneven and largely dependent on institutional readiness. To cite an instance, it is now established from a variety of studies in South

Africa and Botswana (Modise, 2020; Mohr & Shelton, 2017; Ramulumo, 2023) that continuous professional development and pedagogical support are crucial for effective adoption. However, these scholars concurred that persistent challenges such as limited connectivity, inconsistent leadership commitment, and inadequate quality-assurance systems have negatively affected the implementation of blended learning. In support of these utterances, scholars such as Mokenela (2019) and Nkhi et al. (2023) stressed that educators often rely on personal initiative rather than systemic support, mirroring broader infrastructural and policy weaknesses. Surprisingly, while research elsewhere has extensively documented lecturers' experiences with blended learning, in the context of Lesotho – on the contrary – there has been little discussion on how lecturers in perceive and implement such approaches amid resource constraints and policy ambiguity.

A considerable amount of literature has been published on student experiences in blended learning. These studies underscored that the success of blended learning also depends on learners' digital competence, motivation, and support structures. For instance, studies by Akbarov et al. (2018), Smith and Hill (2018), and Gault and Cuevas (2022) linked students' technological readiness to engagement and satisfaction. Similarly, Yusuf et al. (2023) and Junus et al. (2021) argued that social presence and interaction are vital for building online communities of learning. Yet, very few studies in Lesotho or the SADC region systematically explored students' perceptions of blended learning or their experiences with teaching, social, and cognitive presence. To date, surprisingly, the students' experiences on blended learning had still not yet been comprehensively studied in Lesotho's higher education context.

The importance of institutional and learner-support systems in sustaining blended learning is also well documented (Annand, 2011; Richardson & Swan, 2019; Makumane et al., 2023). These scholars highlighted the need for inclusive policies, flexible curricula, and responsive academic and psychosocial support. However, there was a lack of empirical work identifying context-specific best practices and practical guidelines for supporting blended learning within resource-constrained higher education systems. No comprehensive, evidence-based guidelines or models had been developed to guide

lecturers and institutions in effectively implementing and sustaining blended learning in Lesotho. Addressing these four gaps formed the central purpose of this study.

The literature also reviewed the theoretical frameworks underpinning this study. The Community of Inquiry (CoI) and the Unified Theory of Acceptance and Use of Technology (UTAUT) were interpreted in the context of the study. The CoI framework emphasises the interplay of teaching, social, and cognitive presence in promoting meaningful online and blended learning experiences (Garrison et al., 2000). On the other hand, UTAUT explains how users adopt and sustain technology based on factors such as performance expectancy and facilitating conditions (Molefi et al., 2023). What should be mentioned is that the integration of these models allowed the study to examine blended learning not only as a technological innovation but also as a pedagogical and institutional process. The review concluded by identifying a clear research gap in Lesotho. Although national and institutional policies advocate for technology-enhanced learning, there is limited empirical evidence on how blended learning is understood, practised, and supported. Addressing this gap became the central motivation for the present study.

7.4 SUMMARY OF KEY FINDINGS

The findings arose from the analysis of the national and institutional policies, the lecturers' semi-structured interviews and the students' questionnaire. All these data collection methods were aimed at answering the following research questions:

1. What is the nature of blended learning in higher education institutions in Lesotho?
2. How do lecturers perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?
3. How do students perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?
4. Which best practices for learner support in blended learning are required within Lesotho's higher education institutions?

5. Which comprehensive guidelines can be developed to assist lecturers in facilitating the effective implementation of blended learning in higher education institutions in Lesotho?

The section below provides a summary of the findings under each question although it should be remembered that in Chapter 6, there was an integrated discussion of the findings.

7.4.1 Response to research question 1: What is the nature of blended learning in higher education institutions in Lesotho?

Document analysis revealed that blended learning is conceptually recognised across both national and institutional policy frameworks, notably within the Higher Education Policy (2013), the Draft Open and Distance Learning Policy (2022), and the Digital Transformation Policy (2024). These national documents position technology-enhanced and flexible learning as strategic tools for improving access, equity, and quality in higher education. However, the analysis disclosed that they do not provide an explicit or uniform definition of blended learning, nor do they articulate detailed implementation strategies or monitoring mechanisms. This absence of operational clarity at the national level has led to uneven adoption across institutions.

At the institutional level, teaching and learning policies echoed the national commitment to digital transformation but similarly lacked coherence and depth. In most participating institutions, blended learning appeared as a sub-component under general statements promoting innovative or technology-supported pedagogy rather than as a fully developed delivery mode. For instance, some policies defined blended learning only in relation to learning management systems (LMS) or digital content upload, while others described it as a combination of face-to-face and online activities without specifying proportions, standards, or assessment modalities. Remarkably, only one institution provided a clear definition aligned with international standards. This institution viewed blended learning as a deliberate integration of online and physical classroom experiences guided by pedagogical intent.

In a nutshell, it could be argued that although blended learning is formally acknowledged at both policy levels, its conceptualisation and operationalisation remain uneven. This without doubt reveals the need for a coordinated framework that links national directives to institutional practice and classroom pedagogy.

7.4.2 Response to research question 2: How do lecturers perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?

Lecturers across the participating institutions demonstrated positive attitudes towards blended learning because they acknowledged its pedagogical value in widening access, promoting learner-centred approaches, and encouraging active engagement. They also recognised that blending online and face-to-face modalities creates opportunities for flexibility and innovation particularly in contexts where large class sizes and limited physical resources constrain traditional teaching. Many lecturers described blended learning as an essential pathway for improving quality and inclusivity in higher education (Modise, 2022). Their reflections revealed a growing awareness of the potential of technology to enrich teaching and learning, stimulate critical thinking, and support students' independent learning skills. These findings correspond with studies by Dziuban et al. (2018) and Hrastinski (2019) who emphasise that the pedagogical integration of technology enhances student engagement and deeper understanding.

However, despite this enthusiasm, lecturers identified several persistent barriers that hinder effective implementation and these barriers outweigh the prospects presented. Among the most pressing challenges were unreliable internet connectivity, frequent power interruptions, and limited access to digital devices for both lecturers and students (Modise, 2020; Ramulumo, 2023). Institutional support systems were described as weak or inconsistent with minimal technical assistance and inadequate infrastructural investment reverberating the concerns of Mohr and Shelton (2017) that institutional structures often fail to provide sustained e-learning support.

Likewise, professional development opportunities were found to be sporadic and often limited to basic ICT training rather than pedagogical integration. This pattern was also

observed by Evans et al. (2019) who stress the need for continuous training in all the disciplines. As a result, many lecturers relied on personal initiative and resources to sustain blended learning activities. They underlined that meaningful progress requires consistent leadership commitment, adequate resource allocation, and formal recognition of blended-teaching efforts through institutional policy and workload frameworks. Collectively, these findings point to a system that is conceptually ready but structurally underprepared to support lecturers in fully realising the transformative potential of blended learning.

7.4.3 Response to research question 3: How do students perceive factors that affect the successful implementation of blended learning in higher education institutions in Lesotho?

Students' responses from the questionnaire revealed generally positive perceptions of blended learning. They indicated that they found blended learning engaging, flexible, and conducive to deeper learning. These results are consistent with the findings by Dziuban et al. (2018) and Hrastinski (2019) who assert that blended environments enhance flexibility and independent learning. The results showed strong teaching presence and this shows that students appreciate lecturers' efforts to communicate course goals clearly, organise learning materials effectively and provide timely and constructive feedback. These findings reaffirm Garrison et al.'s (2000) assertion that teaching presence is central to the Community of Inquiry (CoI) Framework because it structures learning experiences and maintains engagement. Moving on, students also recognised the value of cognitive presence as they noted that blended learning activities encouraged them to think critically, explore ideas, and apply knowledge to real-world contexts. This result is also aligned with Fiock (2020) and Junus et al. (2019) who found that blended learning improves deeper learning through reflective inquiry and application of knowledge.

Despite these strengths, students highlighted areas requiring improvement, particularly in relation to social presence and interaction. While many students felt comfortable participating in discussions, they desired more opportunities for collaboration, peer feedback, and community-building activities. Similar observations were made by Yusuf et

al. (2023) and Makumane et al. (2023) who emphasised that social presence mitigates isolation and supports a sense of belonging in online environments. Some students reported that online interactions were often limited to information exchange rather than deeper dialogue. This therefore suggests that the relational dimension of learning was not fully realised. Overall, students regarded blended learning as a valuable and necessary innovation but emphasised that its success depends on the lecturer's ability to facilitate interaction, sustain motivation, and balance online and face-to-face engagement effectively (Hill, 2018).

7.4.4 Response to research question 4: Which best practices for learner support in blended learning are required within Lesotho's higher education institutions?

The findings disclosed three major clusters of best practices necessary for strengthening student support in blended learning environments. The first cluster relates to student support, motivation, and engagement which emerged as central to sustained participation and success. Lecturers and students alike highlighted the importance of ongoing feedback, clear communication, and the establishment of supportive learning relationships. These practices align with the findings of Garrison et al. (2000) and Richardson and Swan (2019) who maintain that effective teaching presence and social presence are essential for sustaining student motivation in blended settings. Students reported feeling more confident and engaged when lecturers maintained regular contact through announcements, online discussions, or quick responses to queries. Motivation was also enhanced when feedback was constructive and timely, helping learners track their progress and improve as emphasised by Junus et al. (2019) and Yusuf et al. (2023). These practices align closely with the teaching and social presence components of the Community of Inquiry Framework, where meaningful interaction and guidance sustain learners' interest and sense of belonging.

The second and third clusters emphasised flexibility, accessibility, inclusivity, and pedagogical innovation as essential conditions for effective learner support. Policy documents and lecturers underscored the need for flexible course structures that allow students to learn at their own pace, especially in a context where digital access varies

widely. Furthermore, lecturers acknowledged that genuine support requires innovative pedagogical practices such as problem-based learning, collaborative projects, and authentic assessment tasks that mirror real-world application.

Collectively, these clusters suggest that learner support in blended learning must be systemically embedded within institutional policy and practice rather than dependent on individual lecturer initiative. This aligns with Modise and Zawacki-Richter (2023) who stress that sustainable blended learning requires systemic support structures and a culture of pedagogical innovation across higher education institutions.

7.4.5 Research Question 5: Which comprehensive guidelines can be developed to assist lecturers in successful implementation of blended learning?

Drawing on evidence from the preceding research questions, the study proposed the Lesotho – Blended Learning Readiness and Implementation Model (L – BLRIM) and a set of practical guidelines to help institutions and lecturers operationalise blended learning effectively. As shown in Figure 7.1, the model integrates five pillars namely:

- Institutional Leadership and Governance
- Technological infrastructure and Digital Equity
- Pedagogical Readiness and Professional Development
- Learner Engagement and Support Systems
- Evaluation, Quality Assurance and Sustainability.

7.5 CONCLUSIONS OF THE STUDY

This study set out to explore the possibilities of implementing blended learning in higher education institutions in Lesotho and was guided by the Community of Inquiry (CoI) and the Unified Theory of Acceptance and Use of Technology (UTAUT) frameworks. Drawing evidence from document analysis, lecturer interviews, and student questionnaires, the research concluded that blended learning is conceptually well accepted across the higher education landscape but remains inconsistently defined and operationalised. Both

national and institutional policies recognise technology-enhanced education as a vehicle for improving access, flexibility, and quality. However, the absence of explicit frameworks, resource allocation strategies, and monitoring mechanisms means that implementation continues to rely largely on individual initiative rather than coherent institutional systems. Consequently, Lesotho's higher education sector is at a formative stage where blended learning exists more as a policy aspiration than as an embedded pedagogical practice.

At the institutional and pedagogical levels, the study found that lecturers demonstrate strong professional will to adopt blended learning and acknowledge its transformative potential for widening participation and promoting active, learner-centred approaches. Nevertheless, structural barriers including unreliable internet connectivity, inadequate ICT infrastructure, limited access to devices, and irregular power supply continue to hinder progress. Professional-development opportunities are irregular and often limited to basic digital literacy and this leaves gaps in pedagogical design, facilitation, and assessment for blended environments. These challenges reveal that Lesotho's institutions are conceptually ready but structurally underprepared. Effective leadership, targeted investment, and institutional recognition of blended teaching efforts are therefore critical for moving from isolated innovation to sustainable practice.

From the students' perspective, the study concluded that students perceive blended learning as both relevant and empowering. They value the flexibility it provides, the clarity of course organisation, and the access to learning resources that transcend traditional classroom boundaries. Their responses reflected strong teaching and cognitive presence but somewhat weaker social presence. This indicated that interaction among peers and between students and lecturers is essential to sustaining engagement These results confirm that pedagogical quality and not mere technological provision determine student satisfaction and success in blended learning environments.

In relation to learner support, the study identified three key areas that require institutionalisation: (a) continuous communication and feedback to maintain motivation and engagement; (b) flexibility and inclusivity to accommodate diverse socio-economic realities; and (c) innovative, inquiry-driven teaching that connects theory to authentic contexts. When these dimensions are integrated into institutional policy and practice, they

reinforce all three presences of the CoI framework and enhance the facilitating conditions described in UTAUT. The evidence therefore suggests that sustainable blended learning depends on complete support structures that nurture both the human and technological dimensions of teaching and learning.

Finally, the study concludes that achieving effective blended learning in Lesotho's higher education institutions requires a whole system transformation rather than isolated technological interventions. This transformation must align national and institutional policies, invest in infrastructure, build lecturer capacity, and embed learner support mechanisms within curricula and quality-assurance processes. In response, the current research developed the Lesotho Blended Learning Readiness and Implementation Model (L – BLRIM). The model and accompanying practical guidelines provide a context responsive roadmap for translating blended learning aspirations into tangible and sustainable outcomes.

7.6 IMPLICATIONS OF THE STUDY

The findings of this study hold several important implications for research, policy, and practice within and beyond Lesotho's higher education system. By examining blended learning through the combined lenses of the Community of Inquiry (CoI) (Garrison et al., 2000) and the Unified Theory of Acceptance and Use of Technology (UTAUT*)* (Venkatesh et al., 2003), the study generated evidence that extends both the theoretical and applied understanding of technology-enhanced education in resource-constrained contexts.

7.6.1 Methodological Implications

This study demonstrates the value of employing a mixed-methods convergent parallel design to explore educational innovation within developing contexts. By integrating qualitative and quantitative approaches; document analysis, lecturer interviews, and student questionnaires, the study achieved methodological triangulation that strengthened the validity and credibility of the results (Creswell & Plano Clark, 2018). The approach provided a balanced understanding of how policy frameworks, lecturer perceptions, and learner experiences interact to shape blended learning. It also shows

that context-sensitive adaptation of existing tools such as the CoI questionnaire can yield rigorous, locally relevant insights (Fiock, 2020). Future researchers can adapt this methodological framework to study complex educational reforms that involve interactions between policy, institutional culture, and learner experience. Furthermore, the design exemplifies how theory-driven instruments such as the Community of Inquiry (CoI) questionnaire can be meaningfully adapted and contextualised to capture local realities while maintaining international rigour.

7.6.2 Practical Implications

Practically, the study confirms that effective blended learning depends on aligning technological readiness with human capacity development. Institutions must view blended learning not as a technological upgrade but as a pedagogical transformation requiring well supported lecturers, motivated students, and responsive curricula (Graham, 2013; Hrastinski, 2019). In line with this, professional development should therefore move beyond ICT training towards continuous mentorship that strengthens digital pedagogy and reflective practice. The findings further demonstrate the need for institutionalised student support such as academic advising, e-tutoring, and psychosocial assistance to enhance engagement and retention (Yusuf et al., 2023).

7.6.3 Policy Implications

At the policy level, the study underscores the need for clear national and institutional frameworks that translate digital transformation goals into concrete operational strategies. While the Higher Education Policy (2013) and the Digital Transformation Policy (2024) highlight technology integration as a strategic priority, they lack detailed implementation mechanisms and evaluation indicators. The findings support recommendations by Modise (2020) who argues that sustainable blended learning in Southern Africa requires policy coherence, targeted investment, and capacity building. The Ministry of Education and Training and the Council on Higher Education in Lesotho should therefore develop a national blended learning framework specifying standards, delivery models, and quality-assurance benchmarks. Institutions, in turn, must integrate blended learning into teaching

and learning policies, budgets, and performance management systems to ensure sustainability.

7.6.4 Implications for Education Beyond Lesotho

Beyond Lesotho, the study contributes insights relevant to other developing and transitional systems, particularly within the Southern African Development Community (SADC). The challenges identified unclear policies, limited infrastructure, and capacity deficits. The challenges mirror those reported in comparable contexts (Modise & Zawacki-Richter, 2023; Dziuban et al., 2018). The L-BRIM model thus offers a scalable roadmap that can be adapted across similar educational systems seeking to strengthen blended learning readiness. Moreover, the integration of CoI and UTAUT frameworks illustrates how pedagogical and technological factors can be harmonised in research and practice. Internationally, this study reinforces the position advanced by Garrison and Vaughan (2008) that effective digital transformation must be anchored in pedagogy, inclusivity, and human-centred design rather than technology alone. As such, the findings contribute to the global discourse on equitable and sustainable blended learning ecosystems in higher education.

7.7 NEW KNOWLEDGE CONTRIBUTED BY THE FINDINGS

The Lesotho – Blended Learning Readiness and Implementation Model (L-BLRIM) was developed as a culmination of this study's mixed-method findings and theoretical foundations. The model integrates evidence derived from policy and institutional documents, lecturer interviews, and student questionnaires to respond to the need for a context-specific framework that guides higher education institutions in Lesotho towards sustainable blended learning implementation.

Figure 7.1: Lesotho – Blended Learning Readiness and Implementation Model (Mokhets'engoane, 2025)

What has been documented in this study is that the Community of Inquiry (CoI) Framework (Garrison et al., 2000) provided views into the pedagogical dimensions of teaching, social, and cognitive presence, and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003), on the contrary, illuminated the technological and behavioural enablers of adoption. Neither theory alone addressed the realities revealed in this study. The L-BLRIM therefore extends these frameworks by offering a macro and meso level model that bridges the gap between conceptual awareness and operational practice.

The model is underpinned by five interdependent components:

(1) Institutional Leadership and Governance,

(2) Technological Infrastructure and Digital Equity,

(3) Pedagogical Readiness and Professional Development,

(4) Learner Engagement and Support Systems, and

(5) Evaluation, Quality Assurance, and Sustainability.

Mutually, these components represent a continuous cycle of reflection, adaptation, and improvement, positioning blended learning not as an isolated intervention but as a strategic, evolving system of teaching and learning in Lesotho (Figure 7.1).

7.7.1 Institutional Leadership and Governance

The first component, Institutional Leadership and Governance recognises that effective blended learning begins with clear policy direction and leadership commitment. Evidence from the document analysis revealed that national policies such as the Higher Education Policy (2013) and the Digital Transformation Policy (2024) articulate the value of technology-enhanced learning but lack operational specificity. Similarly, lecturers reported that institutional policies often remained aspirational and were not translated into actionable frameworks or resource allocations.

This component therefore strengthens the need for strong institutional governance structures that coordinate, monitor, and evaluate blended learning initiatives. To be precise, leadership must play a proactive role in defining institutional strategies, mobilising resources and integrating blended learning into broader academic and strategic plans. Equally indispensable, governance also entails creating enabling structures such as e-learning committees, directorates, and policy frameworks that align with national priorities. In this sense, leadership functions as the anchor of readiness, thereby transforming policy into practice and ensuring accountability and long-term sustainability.

7.7.2 Technological Infrastructure and Digital Equity

This component of L-BLRIM addresses the foundational conditions required for effective blended learning. Across the data sets, both lecturers and students identified persistent infrastructural challenges including unreliable internet connectivity, power interruptions, limited access to devices, and poorly maintained Learning Management Systems (LMS).

These findings confirm that technological inequality remains a key barrier to equitable participation in blended education.

To address these gaps, this component advocates for inclusive digital strategies that ensure reliable connectivity, accessible learning platforms, and affordable data options. In this regard, institutions should invest in ICT infrastructure that accommodates varying bandwidth capacities and supports both synchronous and asynchronous learning. Affordable data options for both students and lecturers could be provided to mitigate this digital divide. Digital equity also extends to accessibility and ensures that all students, including those in rural areas or with disabilities, can participate fully. Furthermore, institutions must provide technical support systems that include ICT helpdesks, continuous maintenance, and user training for both lecturers and students. Technological infrastructure, therefore, serves as the physical and digital backbone that enables effective teaching, learning, and assessment in blended environments. Ultimately, this pillar aligns with UTAUT's "facilitating conditions" and ensures that infrastructural support forms the backbone of effective blended learning.

7.7.3 Pedagogical Readiness and Professional Development

This third component situates the lecturers at the centre of blended learning transformation. The findings revealed that lecturers were generally enthusiastic about the potential of blended learning but often lacked formal training in digital pedagogy and course design. Professional development, where available, was irregular and focused mainly on technical rather than pedagogical competencies.

This component promotes a shift from ad hoc training to systematic, ongoing professional development that integrates both technological proficiency and pedagogical innovation. I argue that such programmes should enable lecturers to design interactive courses, facilitate online collaboration, and employ authentic assessments that promote critical thinking and problem-solving. Institutions are encouraged to establish communities of practice to encourage peer mentoring, reflective dialogue, and the sharing of innovative strategies. Importantly, recognition of lecturers' blended learning efforts – perhaps through incentives, workload consideration, and academic promotion – can further enhance motivation and institutional ownership. Pedagogical readiness is therefore both

a professional and organisational process that empowers lecturers to transform teaching and learning cultures.

7.7.4 Learner Engagement and Support Systems

The fourth component, Learner Engagement and Support Systems, emphasises the centrality of the learner in the blended learning ecosystem. The student survey data indicated strong perceptions of teaching and cognitive presence, but moderate levels of social presence, suggesting the need for improved collaboration and interactive engagement. Students also reported that regular communication, timely feedback, and accessible support enhanced their motivation and confidence.

This component, therefore, calls for the creation of holistic learner support structures that integrate academic, technical, and psychosocial assistance. Institutions should develop virtual orientation programmes to build students' digital literacy and familiarity with blended environments. Again, the findings suggest that there must be ongoing support through e-tutoring, peer mentoring, and interactive discussion spaces that enhance learners' sense of belonging and participation. This pillar is firmly grounded in the CoI framework, where social and cognitive presence promote authentic learning experiences.

7.7.5 Evaluation, Quality Assurance and Sustainability

This component ensures that blended learning is both accountable and adaptive. The study uncovered that although some institutions had general quality assurance mechanisms, few included explicit indicators for blended learning delivery or outcomes. Regarding assessments, they often relied on traditional examinations with limited integration of digital or authentic assessment approaches.

This component therefore advocates for institutionalised evaluation frameworks that incorporate blended learning standards within quality assurance systems. In collaboration, evaluation should be multidimensional, that is, considering student engagement analytics, lecturer feedback, and course reviews to provide a data-driven understanding of effectiveness. It is observed that quality assurance should also ensure inclusivity, accessibility, and alignment between learning outcomes and delivery modes. Sustainability is achieved when these processes become cyclical and self-reinforcing:

data collected from evaluations informs continuous improvement, guiding leadership decisions and resource planning. Ultimately, this component transforms blended learning from an experimental initiative into a mainstream and enduring educational practice embedded within institutional culture.

7.7.6 PRACTICAL GUIDELINES FOR IMPLEMENTATION OF BLENDED LEARNING IN LESOTHO HIGHER EDUCATION INSTITUTIONS

This section presents a breakdown of the guidelines developed in this study.

1. Institutional Leadership and Governance

- Establish dedicated blended learning leadership structures such as institutional e-learning committees which are responsible for policy formulation, oversight, and strategic coordination.
- Integrate blended learning into institutional strategic and academic plans, linking it to quality assurance, performance management, and funding frameworks.
- Develop and adopt an institutional blended learning policy that clearly defines the concept, delineates responsibilities, and sets measurable goals for implementation.
- Develop leadership capacity building through training and benchmarking visits to universities within the SADC region that have successfully implemented blended learning.
- Ensure transparency and accountability mechanisms by incorporating blended-learning indicators in institutional performance reviews and accreditation processes.

2. Technological Infrastructure and Digital Equity

- Conduct institutional ICT audits to identify infrastructural gaps in connectivity, hardware, and LMS functionality.

- Provide reliable and affordable internet connectivity for both lecturers and students through prioritising partnerships with telecommunication companies for subsidised data packages.
- Ensure device access and maintenance including computer laboratories, mobile device loan schemes, and accessible Wi-Fi hotspots across campuses.
- Develop inclusive access strategies to support students from rural and low-income backgrounds, including offline learning materials and mobile-compatible platforms.
- Strengthen ICT technical support systems by establishing helpdesks, maintenance teams, and rapid-response systems to address technical issues promptly.

3. Pedagogical Readiness and Professional Development

- Implement structured, continuous professional development programmes that cover both technical and pedagogical competencies emphasising course design, online facilitation, and assessment in blended environments.
- Encourage peer learning and collaboration through communities of practice where lecturers can share challenges, solutions, and innovative teaching strategies.
- Incorporate blended learning competence into academic promotion and performance appraisal criteria to incentivise participation and innovation.
- Provide access to instructional design experts who can support lecturers in redesigning courses to suit blended formats.
- Promote reflective practice by encouraging lecturers to document and share lessons learned from their blended-teaching experiences as part of professional portfolios.

4. Learner Engagement and Support Systems

- Establish structured learner support services such as online helpdesks, e-tutoring, academic counselling, and orientation programmes focused on digital literacy and self-regulated learning.

- Enhance communication and feedback mechanisms by ensuring that lecturers maintain regular contact through discussion forums, virtual announcements, and one-on-one consultations.
- Encourage peer collaboration and social presence through group projects, peer assessments, and interactive learning activities that promote community building.
- Integrate motivational strategies such as recognition of student participation, gamified activities, or showcasing student projects to sustain engagement.
- Monitor student engagement data (for instance, LMS analytics and participation metrics) to identify at-risk students early and offer timely interventions.

5. Evaluation, Quality Assurance and Sustainability

- Develop blended learning quality standards aligned with the Council on Higher Education's (CHE) accreditation framework, including benchmarks for course design, accessibility, and feedback.
- Adopt data-driven decision-making by using LMS analytics, student surveys, and lecturer evaluations to assess effectiveness and guide continuous improvement.
- Integrate authentic assessment methods, such as e-portfolios, case studies, and project-based learning, to measure both content mastery and practical application.
- Institutionalise blended learning within budgetary and planning frameworks, ensuring consistent funding for infrastructure, training, and innovation.
- Create a culture of sustainability and reflection by periodically reviewing blended-learning policies, sharing best practices, and documenting institutional progress.

All in all, these guidelines operationalise the L-BLRIM by providing a roadmap from conceptual readiness to full implementation. They encourage higher education institutions to adopt a holistic, iterative approach which integrates leadership, technology, pedagogy, learner support, and evaluation into a unified process of continual development.

7.8 LIMITATIONS OF THE STUDY

Notwithstanding the fact that this study provides valuable data and insight into the successful implementation of blended learning in Lesotho's higher education institutions, several limitations should be acknowledged to contextualise its findings. These limitations do not undermine the significance of the findings but rather highlight the scope within which the conclusions should be interpreted. As Creswell and Plano Clark (2018) note, recognising limitations enhances transparency and strengthens the credibility of mixed-methods research by clarifying methodological boundaries and contextual constraints.

First, the study's scope and sample size were limited to a selected number of higher education institutions in Lesotho which may not fully represent all institutional contexts nationwide. Although data were collected from both public and private institutions, the inclusion of only a small number of universities limits the generalisability of the findings. Similarly, lecturer and student participation was voluntary, and this might have introduced self-selection bias as participants with stronger interest or experience in blended learning may have been more inclined to take part (Cohen et al., 2018). Moreover, while the questionnaire provided valuable quantitative data on student perceptions, it captured responses at a single point in time making it difficult to assess changes in attitudes or experiences over longer periods.

Furthermore, the institutional and policy documents analysed, though authoritative, were limited to those that were accessible at the time of the study. Policies and strategic plans are dynamic and may have evolved since data collection, potentially influencing current institutional directions. Finally, the study's findings are situated within Lesotho's unique socio-economic and infrastructural context; thus, while the conclusions may inform other developing systems, their direct transferability should be approached cautiously. Despite these limitations, the study's triangulated design, theoretical grounding, and systematic integration of data across three sources ensured sufficient validity and robustness to inform both practice and policy.

7.9 RECOMMENDATIONS

Based on the findings of this research and the principles embedded in the Lesotho Blended Learning Readiness and Implementation Model (L-BLRIM), several recommendations are proposed. They are structured at three levels: governmental, institutional, and pedagogical to ensure coherent policy direction and effective classroom practice.

7.9.1 Recommendations at the Government Level

The Government of Lesotho, through the Ministry of Education and Training and the Council on Higher Education (CHE), should take a leading role in institutionalising blended learning as a national educational priority. There is a need to develop a comprehensive national framework for blended learning that clearly defines standards, delivery modes, and quality benchmarks across all higher education institutions. This framework should build on the existing Higher Education Policy (2013) and Digital Transformation Policy (2024) translating them into actionable implementation plans supported by funding mechanisms.

Additionally, government should invest in national ICT infrastructure, including connectivity expansion and digital resource hubs, particularly in rural areas. It is highly recommended that capacity-building initiatives be coordinated at the national level to train lecturers and administrators in digital pedagogy, supported through partnerships with regional organisations such as SADC and UNESCO. Finally, a dedicated monitoring and evaluation mechanism should be established within CHE to assess institutional progress and ensure policy coherence across the higher education sector.

7.9.2 Recommendations at Institutional Level

Higher education institutions should focus on creating an enabling institutional environment that aligns leadership, resources, and pedagogy towards blended learning success. It is advised that universities must formulate and adopt institutional blended learning policies that specify the purpose, guiding principles, and responsibilities of departments and staff. Blended learning should be integrated into strategic and academic plans and supported by adequate budgets for ICT, training, and technical support.

Additionally, institutions should strengthen quality assurance systems to include blended learning indicators such as student engagement, accessibility, and content quality and implement periodic reviews based on student feedback and learning analytics. Furthermore, management should encourage communities of practice among lecturers to stimulate peer mentoring, collaborative innovation, and shared professional growth. Lastly, institutional leadership must ensure that blended learning is not an optional experiment but a core pedagogical mode that advances inclusion, flexibility, and quality in higher education.

7.9.3 Recommendations at Lecturer Level

Lecturers play a critical role in the success of blended learning and must be equipped to act as facilitators of learning rather than mere transmitters of content. It is recommended that lecturers actively participate in continuous professional development programmes focused on digital pedagogy, course design, and student engagement strategies. They should leverage available learning management systems and online tools to create interactive and student-centred learning environments that promote social and cognitive presence. Regular reflection on teaching practices through peer observation, mentoring, or digital teaching portfolios can further enhance pedagogical competence. Lecturers are also encouraged to provide timely feedback and consistent communication with students to sustain motivation and promote inclusivity.

7.10 SUGGESTIONS FOR FUTURE RESEARCH

The following suggestions are offered to guide future research efforts aimed at deepening and expanding the understanding of blended learning in similar contexts:

- Longitudinal Studies: Future research could adopt longitudinal designs to track changes in institutional readiness, lecturer competence, and student engagement over time and this will help assess the long-term impact of blended-learning implementation.
- Design-Based Interventions: There is scope for experimental or design-based studies that test specific blended-learning interventions such as online

collaborative models, digital assessment tools, or e-portfolio systems to evaluate their pedagogical effectiveness in the Lesotho context.

- Comparative Studies Across Institutions and Regions: Comparative analyses involving multiple institutions or cross-country studies within the SADC region could explore how different policy environments, infrastructure levels, or institutional cultures influence blended-learning success.
- Student Equity and Access Research: Further inquiry is needed to examine the experiences of underrepresented or disadvantaged students, including those from rural areas or with disabilities, to understand how blended learning can be made more equitable and inclusive.
- Leadership and Change Management in Blended Learning: Research could focus on the role of institutional leadership, governance, and organisational culture in driving or hindering blended-learning adoption, providing evidence-based strategies for system-level transformation.
- Integration of Artificial Intelligence and Emerging Technologies: As higher education systems evolve, future studies could investigate how artificial intelligence (AI), adaptive learning, and learning analytics can enhance personalised learning and data-driven decision-making in blended environments.
- Quality Assurance and Evaluation Frameworks**:** Finally, there is a need for empirical studies that develop and validate quality-assurance models specific to blended learning, focusing on standards, indicators, and benchmarks suited to low-resource contexts such as Lesotho.

7.11 CONCLUDING REMARKS

This study has explored the possibilities of blended learning within Lesotho's higher education institutions through an integrated, evidence-based lens. Using the Community of Inquiry (CoI) and Unified Theory of Acceptance and Use of Technology (UTAUT) as guiding frameworks, the research established that while blended learning is conceptually recognised within national and institutional policies, its practical implementation remains

inconsistent. The study discovered both enthusiasm and constraint. Lecturers and students demonstrated readiness and appreciation of blended learning's potential, yet faced persistent infrastructural, pedagogical, and institutional barriers.

The development of the Lesotho Blended Learning Readiness and Implementation Model (L-BLRIM) and its associated practical guidelines represents a major contribution of this research. Together, they provide a structured pathway for transforming blended learning from isolated initiatives into a sustainable and systematised practice. The model's five interlinked pillars: leadership and governance, technological infrastructure, pedagogical readiness, learner engagement, and evaluation provide a holistic response to the contextual realities of Lesotho's higher education landscape.

Ultimately, this study affirms that the success of blended learning lies not merely in technological advancement but in a balanced integration of policy coherence, institutional capacity, and human development. It is only through the alignment of these dimensions that Lesotho can realise its vision of an equitable, flexible, and future-ready higher education system. The findings, model, and recommendations suggested herein therefore extend beyond diagnosis as they constitute a roadmap for transformation, contributing both to national educational reform and to the broader discourse on blended learning in developing contexts.

REFERENCES

Abusalim, N., Rayyan, M., Jarrah, M., & Sharab, M. (2020). Institutional adoption of blended learning on a budget. *International Journal of Educational Management, 34*(7), 1203–1220. https://doi.org/10.1108/ijem-08-2019-0326

Aboagye, E., Yawson, J. A., & Appiah, K. N. (2021). COVID-19 and e-learning: The challenges of students in tertiary institutions. *Social Education Research, 2*(1), 1–8. https://doi.org/10.37256/ser.212021422

Achahbar, A., & Khoumssi, K. (2023). A paradigm switch in higher education learning trend: Blended learning. *European Journal of Education Studies, 10*(1). https://doi.org/10.46827/ejes.v10i1.4646

Adel, A., & Dayan, J. (2021). Towards an intelligent blended system of learning activities model for New Zealand institutions: An investigative approach. *Humanities and Social Sciences Communications, 8*(1). https://doi.org/10.1057/s41599-020-00696-4

Aebersold, M., Villarruel, A., Tschannen, D., Valladares, A., Yaksich, J., Yeagley, E., … & Hawes, A. (2015). Using a virtual environment to deliver evidence-based interventions: The facilitator's experience. *JMIR Serious Games, 3*(2), e5. https://doi.org/10.2196/games.4293

Aivaz, K. (2023). Advantages and disadvantages of using devices during in-person courses: Case study at a public university in Romania. *Studies in Business and Economics, 18*(2), 24-36. https://doi.org/10.2478/sbe-2023-0022

Ajani, O. (2023). Challenges mitigating against effective adoption and usage of e-learning in curriculum delivery in South African universities. *International Journal of Innovative Technologies in Social Science, 2*(38). https://doi.org/10.31435/rsglobal_ijitss/30062023/8005

Akhtar, M. I., & Islamia, J. M. (2016). Research design. In *Research in Social Science: Interdisciplinary Perspectives, 17*.

Akyol, Z., & Garrison, R. (2019). The development of a community of inquiry over time in an online course: Understanding the progression and integration of social, cognitive, and teaching presence. *Online Learning, 12*, 3-4. https://doi.org/10.24059/olj.v12i3-4.1680

Alasoluyi, O. E. (2021). Teachers' awareness and competence in the switch from classroom-based to online teaching during COVID-19 pandemic in Lagos, Nigeria. *Interdisciplinary Journal of Education Research, 3*(2), 23-31. https://doi.org/10.51986/ijer-2021

Alemu, S. K. (2018). Meaning, idea, and history of university/higher education: Brief literature review. *FIRE: Forum for International Research in Education, 4*(3).

Allen, I. E., & Seaman, J. (2010). *Class Differences: Online Education in the United States*. Sloan Consortium. https://files.eric.ed.gov/fulltext/ED529952.pdf

Alsadoon, E., Alkhawajah, A., & Suhaim, A. B. (2022). Effects of a gamified learning environment on students' achievement, motivations, and satisfaction. *Heliyon, 8*(8), e10249. https://doi.org/10.1016/j.heliyon.2022.e10249

Amamo, C. (2021). From the classroom into virtual learning environments: Essential knowledge, competences, skills, and pedagogical strategies for 21st century teacher education in Kenya. https://doi.org/10.5772/intechopen.96950

Amankwaa, L. (2016). Creating protocols for trustworthiness in qualitative research. *Journal of Cultural Diversity, 23*(3), 121-127. https://pubmed.ncbi.nlm.nih.gov/29694754/

Amponsah, S., Ussher, Y., & Benjamin, K. A. (2021). Availability and access to support services in a blended learning environment. *International Journal of Information and Communication Technology Education (IJICTE), 17*(1), 57-71. https://doi.org/10.4018/IJICTE.2021010104

Anderson T. Rourke L. Garrison D. R. Archer W. (2001). Assessing teaching presence in a computer conferencing context. Journal of Asynchronous Learning Networks, 5(2), 1–17 https://doi.org/10.24059/olj.v5i2.1875

Annand, D. (2011). Social presence within the community of inquiry framework. *The International Review of Research in Open and Distributed Learning, 12*(5), 40. https://doi.org/10.19173/irrodl.v12i5.924

Arbaugh J. B. & Hwang, A. (2006). Does "teaching presence" exist in online MBA courses? *The Internet and Higher Education, 9*(1), 9–21. https://doi.org/10.1016/j.iheduc.2005.12.001

Arbaugh, J. B., Cleveland-Innes, M., Diaz, S. R., Garrison, D. R., Ice, P., Richardson, J. C., & Swan, K. P. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *The Internet and Higher Education, 11*(3-4), 133–136. https://doi.org/10.1016/j.iheduc.2008.06.003.

Ayob, N. F. S., Halim, N. D. A., Zulkifli, N. N., Zaid, N. M., & Mokhtar, M. (2020). Overview of blended learning: The effect of station rotation model on students' achievement. *Journal of Critical Reviews, 7*(6), 320–326. https://files.eric.ed.gov/fulltext/EJ1334340.pdf

Azionya, C., & Nhedzi, A. (2021). The digital divide and higher education challenge with emergency online learning: Analysis of tweets in the wake of the COVID-19 lockdown. *Turkish Online Journal of Distance Education, 164-182*. https://doi.org/10.17718/tojde.1002822

Banados, E. (2006). A blended-learning pedagogical model for teaching and learning EFL successfully through an online interactive multimedia environment. *CALICO Journal, 23*(30), 533–550.

Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies, 2*(2), 113-115. https://doi.org/10.1002/hbe2.191

Bates, A. (2018). *Teaching in a digital age: Guidelines for designing teaching and learning for digital age*. Tony Bates Associates Ltd, London.

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report, 13*(4), 544-559.

Becher Araujo Moraes, S. (2023). Blended learning in higher education: An approach, a model, and two theoretical frameworks. *Journal of Teaching and Learning in Higher Education, 4*(1). https://doi.org/10.24834/jotl.4.1.820

Berman, E. (2017). An exploratory sequential mixed methods approach to understanding researchers' data management practices at UVM: Integrated findings to develop research data services. *Journal of eScience Librarianship, 6*(1), e1104. https://doi.org/10.7191/jeslib.2017.1104

Bernard, R. M., Borokhovski, E., Schmid, R. F., Tamim, R. M., & Abrami, P. C. (2014). A meta-analysis of blended learning and technology use in higher education: From the general to the applied. *Journal of Computing in Higher Education, 26*(1), 87–122. https://doi.org/10.1007/s12528-013-9077-3

Berry, S. (2019). Teaching to connect: Community-building strategies for the virtual classroom. *Online Learning, 23*(1). https://doi.org/10.24059/olj.v23i1.1425

Blieck, Y., Zhu, C., Schildkamp, K., Struyven, K., Pynoo, B., Poortman, C., … & DePryck, K. (2020). A conceptual model for effective quality management of online and blended learning. *The Electronic Journal of E-Learning, 18*(2). https://doi.org/10.34190/ejel.20.18.2.007

Boateng, S., & Marwanqana, S. (2024). Enhancing educational practices during a pandemic: Examining teachers' journey with blended learning in rural high schools. *International Journal of Learning, Teaching and Educational Research, 23*(4), 320-340. https://doi.org/10.26803/ijlter.23.4.17

Boelens, R., De Wever, B., & Voet, M. (2017). Four key challenges to the design of blended learning: A systematic literature review. *Educational Research Review, 22*, 1–18. https://doi.org/10.1016/j.edurev.2017.06.001

Bonk, C. J., Olson, T. M., Wisher, R. A., & Orvis, K. L. (2002). Learning from focus groups: An examination of blended learning. *Journal of Distance Education, 17*(3), 97-118.

Boru, T., & Lelissa, T. B. (2018). *Research design and methodology*. University of South Africa.

Bowen, G. A. (2009). *Document analysis as a qualitative research method*. Qualitative Research Journal, 9(2), 27–40. https://doi.org/10.3316/QRJ0902027

Braun, V., & Clarke, V. (2006). *Using thematic analysis in psychology*. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2019). *Reflecting on reflexive thematic analysis*. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. https://doi.org/10.1080/2159676X.2019.1628806

Brocke, J., Simons, A., Riemer, K., Niehaves, B., Plattfaut, R., & Cleven, A. (2015). Standing on the shoulders of giants: Challenges and recommendations of literature search in information systems research. *Communications of the Association for Information Systems, 37*. https://doi.org/10.17705/1cais.03709

Bryan, A., & Volchenkova, K. N. (2016). Blended learning: Definition, models, implications for higher education. *Educational Sciences, 8*(2), 24–30.

Bryman, A. (2021). *Social Research Methods* (6th ed.). Oxford University Press.

Byrne, D. (2022). *A worked example of Braun and Clarke's approach to reflexive thematic analysis*. *Quality & Quantity*, 56, 1391–1412. https://doi.org/10.1007/s11135-021-01182-y

Cardno, C. (2019). Policy document analysis: a practical educational leadership tool and a qualitative research method. *Educational Administration Theory and Practice Journal, 24*(4). https://doi.org/10.14527/kuey.2018.016

Chan, C. (2019). A website for pilot and feasibility studies: giving your research the best chance of success. *Pilot and Feasibility Studies, 5*(1). https://doi.org/10.1186/s40814-019-0522-6

Chen, J., Li, R., Gan, M., Fu, Z., & Yuan, F. (2020). Public acceptance of driverless buses in China: An empirical analysis based on an extended UTAUT model. *Discrete Dynamics in Nature and Society, 2020*, 1–13. https://doi.org/10.1155/2020/4318182

Chere-Masupha, J. (2018). Personal landscapes of teacher professional identities versus digital technology adoption and integration in Lesotho schools. *International Journal of Learning, Teaching and Educational Research, 17*(3), 28-42. https://doi.org/10.26803/ijlter.17.3.3

Chiroma, J. A., Meda, L., & Waghid, Z. (2021). Examining emergency remote teaching using the community of inquiry framework: Lecturer experiences in a Kenyan university. *International Journal of Information and Communication Technology Education, 17*(4), 1–16. https://doi.org/10.4018/IJICTE.20211001.oa17

Chowdhury, F. (2020). Blended learning: How to flip the classroom at HEIs in Bangladesh? *Journal of Research in Innovative Teaching & Learning, 13*(2), 228–242. https://doi.org/10.1108/JRIT-12-2018-0030

Cleveland-Innes, M. (2018). *Guide to blended learning*. Commonwealth of Learning. http://www.col.org

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. Routledge.

Cohen, L., Manion, L., & Morrison, K. (2012). *Research methods in education*. New York: Routledge.

Commonwealth of Learning. (2022). *Blended learning policy: Templates for higher education institutions in Commonwealth Asia*. New Delhi.

Conrad, D. (2019). University instructors' reflections on their first online teaching experiences. *Online Learning, 8*(2). https://doi.org/10.24059/olj.v8i2.1826

Cooney, M. H., Gupton, P., & O'Laughlin, M. (2000). Blurring the lines of play and work to create blended classroom learning experiences. *Early Childhood Education Journal, 27*(3), 165-171.

Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th ed.). Sage.

Council on Higher Education. (2013). *The state of higher education report*. Ministry of Education.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.

Creswell, J. W. (2015). *Introduction to mixed methods research*. Sage Publications.

Creswell, J. W. (2022). A concise introduction to mixed methods research (2nd ed.). SAGE

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Scientific Research Publishing.

Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications. https://edge.sagepub.com/creswellrd6e

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

DeCuir-Gunby, J. T. (2008). Mixed methods research in the social sciences. *Best Practices in Quantitative Methods, 1*, 125-136.

Deniz, Ü., & Erdener, M. (2023). Development and validation of the trust in higher education scale (THES): A mixed-methods approach. *Participatory Educational Research, 10*(3), 1-20. https://doi.org/10.17275/per.23.41.10.3

Dewey, J. (1938). *Logic: The theory of inquiry*. Holt, Rinehart and Winston.

Dana, C., Soffe, B., Shipley, J., Licari, F., Larsen, R., Plummer, K., … & Jensen, J. (2021). Why do faculty resist change? *MedEdPublish, 10*(1). https://doi.org/10.15694/mep.2021.000089.1

Dankers, P., Stoltenkamp, J., & Nelson, M. (2022). Contribution of blended learning technologies and teaching practices to student success. *International Journal of Technology in Education, 5*(2), 193-205. https://doi.org/10.46328/ijte.220

Dziuban, C., Graham, C., Moskal, P., Norberg, A., & Sicilia, N. (2018). Blended learning: The new normal and emerging technologies. *International Journal of Educational Technology in Higher Education, 15*(1). https://doi.org/10.1186/s41239-017-0087-5

Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). Measuring endorsement of the new ecological paradigm: A revised NEP scale. *Journal of Social Issues, 56*(3), 425–442.

Dunlap, R. E. (2008). The new environmental paradigm scale: From marginality to worldwide use. *Journal of Environmental Education, 40*(1), 3–18.

Eldridge, S., Lancaster, G., Campbell, M., Thabane, L., Hopewell, S., Coleman, C., … & Bond, C. (2016). Defining feasibility and pilot studies in preparation for randomised controlled trials: development of a conceptual framework. *Plos One, 11*(3), e0150205. https://doi.org/10.1371/journal.pone.0150205

Evans, J., Yip, H., Chan, K., Armatas, C., & Tse, A. (2019). Blended learning in higher education: professional development in a Hong Kong university. *Higher Education Research & Development, 39*(4), 643-656. https://doi.org/10.1080/07294360.2019.1685943

Fernandez, C.J., Ramesh, R., & Manivannan, A.S.R. (2022). Synchronous learning and asynchronous learning during COVID-19 pandemic: a case in India. *Asian Association of Open Universities Journal, 17*(1), 1-14. https://doi.org/10.1108/AAOUJ-02-21-0027

Fiock, H. (2020). Designing a Community of Inquiry in Online Courses. *The International Review of Research in Open and Distributed Learning*, *21*(1), 134–152. https://doi.org/10.19173/irrodl.v20i5.3985

Flick, U. (2020). Introducing research methodology: thinking your way through your research project. Sage publications

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, *7*(2), 95–105. https://doi.org/10.1016/j.iheduc.2004.02.001

Garrison, D. R., & Vaughan, N. (2008). *Blended learning in higher education*. Jossey-Bass.

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education, 2*(2–3), 87–105. https://doi.org/10.1016/S1096-7516(00)00016-6

Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of Distance Education*, *15*(1), 7–23. https://doi.org/10.1080/08923640109527071

Garrison, D. R., Anderson, T., & Archer, W. (2010). The First Decade of the Community of Inquiry Framework: A Retrospective. *The Internet and Higher Education, 13*, 5-9. https://doi.org/10.1016/j.iheduc.2009.10.003

Garrison, D. R., Cleveland-Innes, M., & Fung, T. S. (2010). Exploring Causal Relationships among Teaching, Cognitive and Social Presence: Student Perceptions of the Community of Inquiry Framework. *The Internet and Higher Education, 13*, 31-36. https://doi.org/10.1016/j.iheduc.2009.10.002

Geng, S., Law, K., & Niu, B. (2019). Investigating self-directed learning and technology readiness in blended learning environment. *International Journal of Educational Technology in Higher Education, 16*(1). https://doi.org/10.1186/s41239-019-01470

George, D., & Mallery, P. (2024). *IBM SPSS statistics 29 step by step: A simple guide and reference*. Routledge. https://doi.org/10.4324/9781032622156

Ghansah, B. (2025). From crisis to opportunity: the digital evolution of higher education in Africa amidst the COVID-19 pandemic. *Discover Education*, *4*(1), 122. https://doi.org/10.1007/s44217-025-00527-1

Gopaul, B., Jones, G., Weinrib, J., Metcalfe, A., Fisher, D., Gingras, Y., … & Rubenson, K. (2016). The academic profession in Canada: Perceptions of Canadian university faculty about research and teaching. *Canadian Journal of Higher Education, 46*(2), 55-77. https://doi.org/10.47678/cjhe.v46i2.185269

Goshtasbpour, F., Ferguson, R., Pitt, B., Cross, S., & Whitelock, D. (2022). Adapting OER: Addressing the challenges of reuse when designing for HE capacity development. *European Conference on E-Learning, 21*(1), 119-127. https://doi.org/10.34190/ecel.21.1.718

Govender, R., & Mpungose, C. (2022). Lecturers' technostress at a South African university in the context of coronavirus (COVID-19). *Cogent Education, 9*(1). https://doi.org/10.1080/2331186X.2022.2125205

Gqokonqana, O., Olarewaju, O. M., & Cloete, M. B. (2022). Blended learning challenges during COVID-19: A case of cost accounting 2 students at a selected South African higher education institution. *Research in Social Sciences and Technology, 7*(2), 87-107. https://doi.org/10.46303/ressat.2022.11

Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs* (pp. 3–21). San Francisco: Pfeiffer.

Graham, C. R. (2013). Emerging practice and research in blended learning. In M. G. Moore (Ed.), *Handbook of distance education* (3rd ed., pp. 333–350). Routledge https://doi.org/10.4324/9780203803738

Grant, C., & Osanloo, A. (2014). Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for your “house.” *Administrative Issues Journal Education Practice and Research, 4*(2). https://doi.org/10.5929/2014.4.2

Guba, E. (1990). *The paradigm dialog*. Sage Publications. https://doi.org/10.47678/cjhe.v46i2.185269

Güzer, B., & Caner, H. (2014). The past, present and future of blended learning: an in depth analysis of literature. *Procedia - Social and Behavioral Sciences 116*, 4596 – 4603 https://doi.org/10.1016/j.sbspro.2014.01.992

Halverson, L. R., & Graham, C. R. (2019). Learner engagement in blended learning environments: A conceptual framework. *Online Learning, 23*(2), 145-178. https://doi.org/10.24059/olj.v23i2.1481

Hanson, E., Gantwerker, E., Chang, D., & Nagpal, A. (2022). To teach or not to teach? Assessing medical school faculty motivation to teach in the era of curriculum reform. *BMC Medical Education, 22*(1). https://doi.org/10.1186/s12909-022-03416-5

Herliana, F., Halim, A., Farhan, A., & Kasli, E. (2020). Identification of lecturer difficulties in implementing of blended learning in the covid-19 era. *Asian Journal of Science Education, 2(*2), 106-113. https://doi.org/10.24815/ajse.v2i2.18274

Ho, N., Pham, H., Sivapalan, S., & Dinh, V. (2022). The adoption of blended learning using coursera moocs: a case study in a Vietnamese higher education institution. *Australasian Journal of Educational Technology, 38*(6), 121-138. https://doi.org/10.14742/ajet.7671

Hockly, N. (2018). Blended Learning. *ELT Journal*, *72*(1), 97–101. https://doi.org/10.1093/elt/ccx058

Hrastinski, S. (2019). What Do We Mean by Blended Learning? *TechTrends*, *63*(5), 564–569. https://doi.org/10.1007/s11528-019-00375-5

Huang, Y., Backman, S., Backman, K., McGuire, F., & Moore, D. (2018). An investigation of motivation and experience in virtual learning environments: a self-determination theory. *Education and Information Technologies, 24*(1), 591-611. https://doi.org/10.1007/s10639-018-9784-5

Hunter, L. M., & Rinner, L. (2004). The association between environmental perspective and knowledge and concern with species diversity. *Society and Natural Resources*, *17*, 517–532

Huy, N. X., Huyen, N. T. T., Huy, V. N., Ba, N. T., & Dat, L. Q. (2023). Factors influencing the effectiveness of blended learning activities: A case study of Vietnam National University, Hanoi. *Multidisciplinary Science Journal*, *5*, 2023044. https://doi.org/10.31893/multiscience.2023044

Ibrahim, M. and Nat, M. (2019). Blended learning motivation model for instructors in higher education institutions. *International Journal of Educational Technology in Higher Education, 16*(1). https://doi.org/10.1186/s41239-019-0145-2

Ibrahim, M. M., & Nat, M. (2019). Blended Learning Motivation Model for Instructors in Higher Education Institutions. *International Journal of Educational Technology in Higher Education, 16* (12), 2–21. https://doi.org/10.1186/s41239-019-0145-2

Ilcha, K. J. (2019).Research design and methodology. Addis Ababa University

Isaacs, S., 2007. Survey of ICT in Education in Lesotho [online]. Survey of ICT and Education in Africa, 2 (53), pp.1-10. Country Reports. Washington, DC: infoDev/World Bank. Available at:http://www.infodev.org/infodevfiles/resource/InfodevDocuments_410.pdf. [Accessed 30 October 2024].

Islam, M. K., Sarker, M. F. H., & Islam, M. S. (2021). Promoting student-centred blended learning in higher education: A model. *E-Learning and Digital Media, 19*(1) 36–54 https://doi.org/10.1177/20427530211027721

Ivankova, N., Herbey, I., & Roussel, L. (2018). Theory and practice of using mixed methods in translational research: a cross-disciplinary perspective. *International Journal of Multiple Research Approaches, 10*(1), 356-372. https://doi.org/10.29034/ijmra.v10n1a24

Janse van Rensburg, E. D., & Oguttu, J. W. (2022). Blended teaching and learning: Exploring the concept, barriers to implementation and designing of learning resources. *South African Journal of Higher Education*, *36*(6), 285-298. https://doi.org/10.20853/36-6-4595

Jarab, F., Al-Qerem, W., Jarab, A., & Banyhani, M. (2022). Faculties' satisfaction with distance education during covid-19 outbreak in Jordan. *Frontiers in Education*, 7. https://doi.org/10.3389/feduc.2022.789648

Jarrah, H., Alhourani, M., & Al-Srehan, H. (2021). Blended learning: the amount of requisite professional competencies in faculty members of Al Ain University from viewpoint of students. *Journal of Applied Research in Higher Education, 14*(4), 1433-1448. https://doi.org/10.1108/jarhe-06-2021-0206

Jeanty, G. and Hibel, J. (2014). Mixed methods research of adult family care home residents and informal caregivers. The Qualitative Report. https://doi.org/10.46743/2160-3715/2011.1081

Johler, J., & Krumsvik, R. J. (2022). Differentiated instruction in digital learning environments: Teachers' practices and challenges. *Education and Information Technologies, 27*, 987–1002. https://doi.org/10.1007/s10639-021-10673-7

Junus, K., Suhartanto, H., R-Suradujono, B. S. H., Santoso, H. B., & Sadita, L. (2019). The Community of Inquiry Model Training Using the Cognitive Apprenticeship

Approach to Improve Students' Learning Strategy in the Asynchronous Discussion Forum. *The Journal of Educators Online*, *16*(1). https://doi.org/10.9743/jeo.2019.16.1.7

Kallio, H., Pietilä, A., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing,* *72*(12), 2954-2965. https://doi.org/10.1111/jan.13031

Karaaslan, H., & Kılıç, N. (2019). Students' attitudes towards blended language courses: A case study. *Journal of Language and Linguistic Studies,* *15*(1), 174-199. https://doi.org/10.17263/jlls.547699

Karakaya, F., Arik, S., Çimen, O., & Yılmaz, M. (2020). Investigation of the views of biology teachers on distance education: The case study of COVID-19 pandemic. *Journal of Education in Science Environment and Health.* https://doi.org/10.21891/jeseh.792984

Kaur, S. (2017).Sample size determination for descriptive studies .International Journal of Current Research. 9(03).48365-48367.

Kaushik, V. and Walsh, C. (2019). Pragmatism as a research paradigm and its implications for social work research. *Social Sciences,* *8*(9), 255. https://doi.org/10.3390/socsci8090255

Kaya, V. and Elster, D. (2019). Environmental stem pedagogical content knowledge (e+stem-pck): teacher's professional development as environmental stem literate individuals in the light of experts' opinions. *Science Education International, 30*(1), 11-20. https://doi.org/10.33828/sei.v30.i1.2

Kelly, L. and Cordeiro, M. (2020). Three principles of pragmatism for research on organizational processes. *Methodological Innovations,* *13*(2). https://doi.org/10.1177/2059799120937242

Kerres, M and de Witt, C (2003). A didactical framework for the design of blended learning arrangements. *Journal of Educational Media* 28/2–3: 101–113

Khalik, A., Siregar, T., Purba, J., & Mukmin, B. (2019). The development of blended learning implementation questionnaire at the Universitas Negeri Medan. https://doi.org/10.4108/eai.24-10-2019.2290625

Khatri, K. (2020).Research paradigm: A philosophy of educational research. *International Journal of English literature and Social Sciences*.5.1435-1440.doi 10.22161/ijels.55.15

Kim Pham, C., Chong, S. L., & Wan, R. (2023). Investigation into undergraduates' experiences of social presence in online learning. *International Journal of Emerging Technologies in Learning (iJET),* *18*(14), 24–38. https://doi.org/10.3991/ijet.v18i14.38193

Kineshanko, M. K. (2016). *A thematic synthesis of community of inquiry research 2000 to 2014* (Doctoral dissertation, Athabasca University).

Krawczyk, P., Maslov, I., Topolewski, M., Pallot, M., Lehtosaari, H. & Huotari, J. (2019). "Threats to Reliability and Validity of Mixed Methods Research in User experience," *IEEE International Conference on Engineering, Technology and Innovation (ICE/ITMC)*, Valbonne Sophia-Antipolis, France, 2019, pp. 1-7, doi: 10.1109/ICE.2019.8792676.

Krull, G. (2023). Supporting the move to post-pandemic blended teaching: Reflections on a professional learning short course. *Ubiquity Proceedings*. https://doi.org/10.5334/uproc.94

Kumar, A., Krishnamurthi, R., Bhatia, S., Kaushik, K., Ahuja, N. J., Nayyar, A., & Masud, M. (2021). Blended Learning Tools and Practices: A Comprehensive Analysis. *IEEE Access*, *9*, 85151–85197. https://doi.org/10.1109/ACCESS.2021.3085844

Kurata, L. (2024). *The role of religious education in the development of social justice competences: A case of three secondary schools in Leribe district.* [Unpublished Masters Dissertation, National University of Lesotho].

Kuvunja, C. & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational context. *International Journal of Higher Education*, 6 (5) 26-41.

Lansangan, R. V., Yoma, K. S., & Yoma, C. A. E. (2022). Pedagogical Practices and Challenges of Junior High School Teachers in Virtual Teaching in the Lens of the CoI Framework. *International Journal of Technology in Education and Science*, *6*(1), 145–163. https://doi.org/10.46328/ijtes.327

Lawson, D., Mellor, K., Eddy, S., Lee, C., Kim, K., Kim, K., … & Thabane, L. (2021). Pilot and feasibility studies in rehabilitation research. *American Journal of Physical Medicine & Rehabilitation, 101*(4), 372-383. https://doi.org/10.1097/phm.0000000000001797

LCA. (2016). The State of ICT in Higher Education in Lesotho. Maseru, Lesotho. Available at: http://www.lca.org.ls/ict-research/. [Accessed 12 October 2024].

LCA. (2017). The State of ICT in Lesotho (2016). Maseru. Available at: http://www.lca.org.ls/ict-research/ [Accessed: 20 October 2024].

Lee, J., Song, H., & Hong, A. (2019). Exploring factors, and indicators for measuring students' sustainable engagement in e-learning. *Sustainability, 11*(4), 985. https://doi.org/10.3390/su11040985

Leedy, P. D., & Ormrod, J. E. (2015). *Practical research planning and design* (11th ed.). Pearson Education Limited.

Lefoka, P. (2023). Perspective Chapter: Lessons from Implementing a Higher Education Program in Lesotho. In: Lee Waller & Sharon Waller (Ed.), *Higher Education – Reflections from the Field*, 2.

Letseka-Manka, M., Morena, M. C., & Khumalo, M. A. (2023). Exploring higher education part-time students' sense of belonging: The case of an institution in Lesotho. *European Journal of Education and Pedagogy,* *4*(5), 7–14. https://doi.org/10.24018/ejedu.2023.4.5.735

Lohr, K., & Haley, K. (2017). Using biographical prompts to build community in an online graduate course: An adult learning perspective. *Adult Learning, 29*(1), 11–19. https://doi.org/10.1177/1045159517735597

Mabeya, M. (2020). Distance learning during covid-19 crisis: primary and secondary school parents experiences in Kenya. *East African Journal of Education Studies, 2*(1), 173-186. https://doi.org/10.37284/eajes.2.1.249

MacDonald, J. (2006) *Blended Learning and Online Tutoring*. Gower

Mackenzie, N., & Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. *Issues in Educational Research*, *16*(2), 193-205.

Mafenya, N. P. (2016). *Effective Assessment in Open Distance and E-learning: Using the Signature Courses at the University of South Africa as a model for future practice*. [Unpublished Doctoral Thesis, University of South Africa].

Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Higher Education*, *9*(3).

Makafane, D., & Masopha, M. J. (2021). COVID-19 Crisis: Challenges of Online Learning in One University in Lesotho. *African Perspective of Research in Teaching and Learning, 5*(1), 126 -138. http://hdl.handle.net/10386/3299

Makoe, M. (2022). Contextual content analysis of mission statements of open and distance education institutions in Sub-Saharan Africa. *Open Praxis, 14*(1), 4-13. https://doi.org/10.55982/openpraxis.14.1.462

Makumane, M., Mataka, T. W., Sengai, W., & Ngcobo, S. (2023). Neutralizing the digital divide: is blended learning a viable solution? *International Journal of Research in Business and Social Science (2147- 4478)*, *12*(7), 511 522https://doi.org/10.20525/ijrbs.v12i7.274

Makumane, M., & Mpungose, C. B. (2022). Navigating digital inequalities in higher education during COVID-19: Lessons from Lesotho and South Africa. *Journal of Learning for Development,* *9*(2), 192–206. https://jl4d.org/index.php/ejl4d/article/view/615

Makurunge, T., & Tlali, N. (2018). Exploring Stakeholders Views on Government of Lesotho's Abolition of Standard/Grade 7 Examinations in 2017: A case study of Primary Schools in Maseru. *The Education Review, USA, 2*(12), 567-575

Maresca, C., Barrero, C., Dereck, D., Platín, E., Rivera, E., Hannum, W., … & Petrola, F. (2014). Utilization of blended learning to teach preclinical endodontics. *Journal of Dental Education,* *78*(8), 1194-1204. https://doi.org/10.1002/j.0022-0337.2014.78.8.tb05791.x

Martela, F. (2015). Fallible inquiry with ethical ends-in-view: a pragmatist philosophy of science for organizational research. Organization Studies, 36(4), 537-563. https://doi.org/10.1177/0170840614559257

Mastellos, N., Tran, T., Dharmayat, K., Cecil, E., Lee, H. Y., Wong, C. C. P., ... & O'Donoghue, J. M. (2018). Training community healthcare workers on the use of information and communication technologies: a randomised controlled trial of traditional versus blended learning in Malawi, Africa. *BMC medical education*, *18*, 1-13.

Matsepe, M. W. (2015). Education as a Gateway to Development: Case of Rural Poor Thabaneng Village in Lesotho. *Journal of Education and Learning, 4*(4), 168-177 https://doi.org/10.5539/jel.v4n4p168

Mcgee, E., & Poojary, P. (2020). EXPLORING BLENDED LEARNING RELATIONSHIPS IN HIGHER EDUCATION USING A SYSTEMS-BASED FRAMEWORK. *Turkish Online Journal of Distance Education*, 1–13. https://doi.org/10.17718/tojde.803343

Mhlanga, D. (2021). The fourth industrial revolution and covid-19 pandemic in South Africa: the opportunities and challenges of introducing blended learning in education. *Journal of African Education, 2*(2), 15-42. https://doi.org/10.31920/2633-2930/2021/v2n2a1

Min, W. & Yu, Z. (2023). A systematic review of critical success factors in blended learning. *Education Sciences, 13*(5), 469. https://doi.org/10.3390/educsci13050469

Ministry of Education and Training. (2016*). Education sector plan 2016-2026*. MoET.

Ministry of Human Resource Development. (2020). National Education Policy 2020 Government of India. *Government of India*, 14–16.

Mmakola, S., & Maphalala, M. C. (2023). Blended teaching and learning in South African secondary schools in the post-COVID-19 pandemic era. *International Journal of Innovative Technologies in Social Science, 4*(40), 1–10. https://doi.org/10.31435/rsglobal_ijitss/30122023/8081

Modise, A. (2023). A reflection on implementation of posthumanist pedagogy in polytechnics in Zimbabwe during covid-19 era. *Journal of curriculum Studies research, 5*(1), 181-192. https://doi.org/10.46303/jcsr.2023.14

Modise, M. P. & Van den Berg, G. (2023). Covid-19 as an Accelerator for Training and Technology Adoption by Academics in Large-Scale Open and Distance Learning Institutions in Africa. *Unisa Press*. https://doi.org/10.25159/UnisaRxiv/000016.v1

Modise, M. P. (2024). Academics' readiness for online teaching in higher education institutions in developing countries: a systematic review. *Science Open Preprints.* https://doi.org/10.14293/pr2199.000988.v1

Modise, M. P. (2020). Continuous professional development and student support in an open and distance e-learning institution: a case study. *International Journal of African Higher Education, 7*(1). https://doi.org/10.6017/ijahe.v7i1.10902

Modise, M. P. & Molotsi, A. (2022). The perceptions of new lecturers towards adopting a learning management system for facilitating modules online in a South African ODeL institution. *International Journal of Education & Development using Information & Communication Technology*, *18*(1).http://0-search.ebscohost.com.oasis.unisa.ac.za/login.aspx?direct=true&db=eue&AN=156669396&site=eds-live&scope=site

Modise, M. P. (2022). *Academic Professional Development and Support of Academics for Digital Transformation in African Large Scale Open and Distance Education Institutions*. [Unpublished Doctoral Thesis, University of South Africa].

Modise, M. P. & Zawacki-Richter, O. (2023). Professional development of academics for the implementation of online learning in African open and distance teaching institutions. *International Journal of E-Learning & Distance Education.* https://doi.org/10.55667/ijede.2022.v37.i2.1256

Mohr, S. and Shelton, K. (2017). Best practices framework for online faculty professional development: a delphi study. *Online Learning, 21*(4). https://doi.org/10.24059/olj.v21i4.1273

Mokenela, P. J. (2019). *Developing a pedagogical framework for blended distance learning at the National University of Lesotho***.** Unpublished Doctoral Thesis. https://repository.tml.nul.ls/handle/123456789/1681

Molefi, R. R., & Ayanwale, M. A. (2023). Using composite structural equation modeling to examine high school teachers' acceptance of E-learning after Covid-19. *New Trends and Issues Proceedings on Humanities and Social Sciences*, *10*(1), 01–11. https://doi.org/10.18844/prosoc.v10i1.8837

Molefi, R. R., Ayanwale, M. A., Kurata, L., & Chere-Masopha, J. (2024). Do in-service teachers accept artificial intelligence-driven technology? The mediating role of school support and resources. *Computers and Education Open*, *6*, 100191. https://doi.org/10.1016/j.caeo.2024.100191

Moloi, K. C., Mhlanga, E., & Nyoni, P. (2020). COVID-19 and the digital transformation of education: What are we learning on 4IR in South Africa? *Education Sciences, 10*(7), 180. https://doi.org/10.3390/educsci10070180

Moore, M. G., & Kearsley, G. (2011). *Distance education: A systems view of online learning.* Cengage Learning.

Morena, M. C., Mokhets'engoane, S. J., & Letseka-Manka, M. (2024). The Experiences of Part-time Primary School Teachers Studying in One University in Lesotho. *European Journal of Education and Pedagogy*, *5*(2), 93–98. https://doi.org/10.24018/ejedu.2024.5.2.794

Morgan, H. (2022). Conducting a qualitative document analysis. *The qualitative report*, *27*(1), 64-77.

Morgan, D. L. (2007). Paradigms lost and pragmatism regained. Methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research*, *1*, 48 – 76.

Mpungose, C. (2020). Emergent transition from face-to-face to online learning in a South African University in the Context of the Coronavirus pandemic. *Humanities & Social Sciences Communications, 7(113), 1-9. DOI: https://doi.org/10.1057/s41599-020-00603-x*

Munce, S., Guetterman, T., & Jaglal, S. (2020). Using the exploratory sequential design for complex intervention development: example of the development of a self-management program for spinal cord injury. *Journal of Mixed Methods Research, 15*(1), 37-60. https://doi.org/10.1177/1558689820901936

Mutezo, A. and Maré, S. (2022). Factorial structure of the community of inquiry survey in a South African open and distance e-learning environment. *Journal of Psychology in Africa, 32*(2), 129-135. https://doi.org/10.1080/14330237.2022.2028081

Naidoo, J., & Singh-Pillay, A. (2024). Social justice implications of digital science, technology, engineering and mathematics pedagogy: Exploring a South African blended higher education context. *Education and Information Technologies, 30*(1), 131–157. https://doi.org/10.1007/s10639-024-12813-w

Nasir, M. K. M., Surat, S., Maat, S. M., Abd Karim, A., & Daud, Md. Y. (2018). Confirmatory Factor Analysis on the Sub-Construct of Teaching Presence's in the Community of Inquiry. *Creative Education, 9,* 2245-2253. https://doi.org/10.4236/ce.2018.914165

Nkhi, S. K., Mofana, M., & Moqasa, N. (2023). Lecturers' perceptions of blended teaching in the Post COVID-19 Era: A case study of a University in Lesotho. *Interdisciplinary Journal of Education Research, 5*, 1-13. https://doi.org/10.38140/ijer-2023.vol5.01

Norz, L., Hackl, W., Benning, N., Knaup, P., & Ammenwerth, E. (2023). Development and validation of the German version of the community of inquiry survey. *Online Learning, 27*(1). https://doi.org/10.24059/olj.v27i1.3306

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). *Thematic analysis: Striving to meet the trustworthiness criteria*. *International Journal of Qualitative Methods*, *16*(1), 1–13. https://doi.org/10.1177/1609406917733847

Nyathi, N. (2018). Ensuring rigour and trustworthiness in a qualitative study: a reflection account. *Childhood Remixed*, 129-141.

O'Connell, A. (2016). Seven blended learning models used today in higher ed. Retrieved from http://acrobatiq.com/seven-blended-learning-models-used-today-in-higher-ed/

Olawumi, K. B., & Mavuso, M. P. (2022). Education in the new normal: A need for alternative strategies in supporting teaching and learning in South African schools in the post-COVID-19 era. *E-Journal of Humanities, Arts & Social Sciences, 3*(11), 116–125. https://doi.org/10.38159/ehass.2022sp31110

Olayiwola, I., & Alimi, K. (2015). Preparedness of colleges of education in southwestern Nigeria for the adoption of blended learning. Jour*nal of Education and Learning (Edulearn), 9*(1), 25-34. https://doi.org/10.11591/edulearn.v9i1.1279

O'Leary, Z. (2021). *The essential guide to doing your research project* (4th ed.). SAGE Publications.

Oliver, M., & Trigwell, K. (2005). Can 'blended learning' be redeemed? E-learning and Digital Media, 2(1), 17–26

Olumorin, C. (2023). Lecturers' perception on the use of blended learning strategy in University of Ilorin, Nigeria. *Journal of Digital Learning and Education, 3*(2), 158-171. https://doi.org/10.52562/jdle.v3i2.430

Osguthorpe, R. T. & Graham, C. R. (2003). Blended learning systems: Definitions and directions. *Quarterly Review of Distance Learning, 4*(3), 227–234

Parulla, C., Weissheimer, A., Santos, M., & Cogo, A. (2022). Translating and validating the community of inquiry survey instrument in Brazil. *The International Review of Research in Open and Distributed Learning, 23*(4), 170-182. https://doi.org/10.19173/irrodl.v23i4.6304

Park, Y., Konge, L., & Artino, A. (2020). The positivism paradigm of research. *Academic Medicine, 95*(5), 690-694. https://doi.org/10.1097/acm.0000000000003093

Pearce, J., Mann, M., Jones, C., Buschbach, S., Olff, M., & Bisson, J. (2012). The most effective way of delivering a train-the-trainers program: A systematic review. *Journal of Continuing Education in the Health Professions, 32*(3), 215-226. https://doi.org/10.1002/chp.21148

Pool, J., Reitsma, G., & Berg, D. (2017). Revised community of inquiry: Examining learning presence in a blended mode of delivery. *Online Learning, 21*(3). https://doi.org/10.24059/olj.v21i3.866

Putri, D., Adha, M., & Pitoewas, B. (2020). The problems of implementing blended learning class in civic education students, University of Lampung. *Universal Journal of Educational Research, 8*(3D), 106–114. https://doi.org/10.13189/ujer.2020.081715

Quintela Do Carmo, G., Vinuesa, V., Dembélé, M., & Ayotte-Beaudet, J. P. (2024**).** Going Beyond Adaptation: An Integrative Review and Ethical Considerations of Semi-Structured Interviews with Elementary-Aged Children. *SAGE Journals*. https://journals.sagepub.com/doi/full/10.1177/16094069241247474

Rahi, S. (2017). Research design and methods: a systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences, 06*(02). https://doi.org/10.4172/2162-6359.1000403

Rakotsoane, F. C. L. (2019). *Research made simple*. Choice Publishing Company.

Ramulumo, M. (2023). Utilizing blended learning to mitigate the challenges brought by natural disasters in South African schools. *Research in Social Sciences and Technology, 8*(4), 76-93. https://doi.org/10.46303/ressat.2023.33

Rapley, T. (2018). Doing conversation, discourse and document analysis. In U. Flick (Ed.), *The SAGE Handbook of Qualitative Data Collection* (pp. 378–391).SAGE Publications Ltd.

Rasheed, R., Kamsin, A., & Abdullah, N. (2020). Challenges in the online component of blended learning: A systematic review. *Computers & Education, 144*, 103701. https://doi.org/10.1016/j.compedu.2019.103701

Ren, W. (2024). Factors influencing students' learning satisfaction and students' learning outcomes in blended learning. *International Journal of Education and Practice, 12*(1), 95-108. https://doi.org/10.18488/61.v12i1.3624

Richardson, J. C., & Swan, K. (2019). Examining social presence in online courses in relation to students' perceived learning and satisfaction. *Online Learning, 7*(1). https://doi.org/10.24059/olj.v7i1.1864

Rotar, O. (2022). Online student support: A framework for embedding support interventions into the online learning cycle. *Research and Practice in Technology Enhanced Learning*, *17*(1), 2. . https://doi.org/10.1186/s41039-021-00178-4

Roulston, K., & Choi, M. (2018). Qualitative interviews. In *The SAGE handbook of qualitative data collection* (pp. 233-249).

Saal, P. and Graham, M. (2019). The relationship between using information and communication technology in education and the mathematics achievement of students. *International Journal of Instruction, 12*(3), 405-424. https://doi.org/10.29333/iji.2019.12325a

Saboowala, R. & Mishra, P. (2020a). Embracing blended learning approach for professional growth of in-service school teachers post pandemic of covid-19. https://doi.org/10.21203/rs.3.rs-54876/v1

Saboowala, R. & Mishra, P. (2020b). Perception of in-service teachers towards blended learning as the new normal in teaching-learning process post covid-19 pandemic. https://doi.org/10.21203/rs.3.rs-56794/v1

Sahni, J. (2019). Does blended learning enhance student engagement? Evidence from higher education. *Journal of E-Learning & Higher Education,* 1-14. https://doi.org/10.5171/2019.121518

Saunders, M. N. K., Lewis, P. & Thornhill, A. (2019). Research Methods for Business Students. 8th Edition, Pearson, New York.

Schu, K. (2023). Strategy development in times of crisis – how the European national olympic committees are mastering the corona crisis. *Sport Business and Management an International Journal, 13*(6), 704-726. https://doi.org/10.1108/sbm-03-2023-0027

Schultz, P. W. (2001).The structure of environmental concern: Concern for self, other people and the biosphere. *Journal of Environmental Psychology*, *21*, 327-339. Http: // dx.doi.org /10.1006 / jevp. 2001.0227

Sefriani, R., Sepriana, R., Wijaya, I., & Radyuli, P. (2021). Blended learning with edmodo: the effectiveness of statistical learning during the covid-19 pandemic. *International Journal of Evaluation and Research in Education (Ijere), 10*(1), 293. https://doi.org/10.11591/ijere.v10i1.20826

Selialia, M. (2024). *Exploring the teaching approaches in Geography for cultivating environmental values and attitudes in four selected secondary schools in Leribe District.* [Unpublished Masters Dissertation, National University of Lesotho].

Sharma, P & Barrett, B. (2007). *Blended Learning*. Macmillan.

Shea, P., Li, C., Swan, K., & Pickett, A. (2019). Developing learning community in online asynchronous college courses: The role of teaching presence. *Online Learning, 9*(4). https://doi.org/10.24059/olj.v9i4.1779

Shreaves, D., Ching, Y., Uribe-Flórez, L., & Trespalacios, J. (2020). Faculty perceptions of online teaching at a mid-sized liberal arts university. *Online Learning, 24*(3). https://doi.org/10.24059/olj.v24i3.2199

Sielmann, C., Chiu, V., & Keulen, C. (2022). An online survey tool for multi-cohort courses. Proceedings of the Canadian Engineering Education Association (Ceea). https://doi.org/10.24908/pceea.vi.15858

Singh, A.D. & Hassan, M. (2017). In pursuit of smart learning environments for the 21st century. *Current and critical issues in curriculum, learning and assessment,* 12, https://unesdoc.unesco.org/ark:/48223/pf0000252335

Singh, J., Singh, L., & Matthees, B. (2022). Establishing Social, Cognitive, and Teaching Presence in Online Learning—A Panacea in COVID-19 Pandemic, Post Vaccine and Post Pandemic Times. *Journal of Educational Technology Systems*, *51*(1), 28–45. https://doi.org/10.1177/00472395221095169

Sissine, M., Segan, R., Taylor, M., Jefferson, B., Borrelli, A., Koehler, M., & Chelvayohan, M. (2014). Cost comparison model: blended eLearning versus traditional training of community health workers. *Online Journal of Public Health Informatics*, *6*(3).

Southern African Development Community Secretariat (2020). *SADC Regional Indicative Strategic Development Plan (RISDP) 2020-2030. Southern African Development Community (SADC) Secretariat.*

Stabback, P. (2016). *What makes a quality curriculum? In-progress reflection no. 2 on current and critical issues in curriculum and learning.* UNESCO International Bureau of Education. https://unesdoc.unesco.org/ark:/48223/pf0000243975.

Stahl, N. A., & King, J. R. (2020). Expanding approaches for research: Understanding and using trustworthiness in qualitative research. *Journal of Developmental Education*, *44*(1), 26-28. https://doi.org/10.26634/jde.44.1.16512

Stake, R. E. (1995). *The art of case study research*. Sage.

Stenbom, S., Cleveland-Innes, M., & Hrastinski, S. (2016). Emotional presence in a relationship of inquiry: The case of one-to-one online math coaching. *Online Learning, 20*(1). https://doi.org/10.24059/olj.v20i1.563

Stewart, J. M. (2002). A blended e-learning approach to intercultural training. *Industrial and Commercial Training*, 34(7), 269-271

Striano, M. (2011). The community of philosophical inquiry as a social and cognitive matrix. *Childhood & Philosophy*, *7*(13), 91-102.

Suprabha K. & Subramonian, G. (2015). Blended Learning Approach for Enhancing Students' Learning Experiences in a Knowledge Society. *Journal of Educational Technology* 11:1-7.

Swan, K., Garrison, D. R. & Richardson, J. C. (2009). A constructivist approach to online learning: the Community of Inquiry framework. In Payne, C. R. (Ed.) Information Technology and Constructivism in Higher Education: Progressive Learning Frameworks. Hershey, PA: IGI Global, 43-57.

Tadesse, S., & Muluye, W. (2020). The impact of COVID-19 pandemic on education system in developing countries: A review. *Open Journal of Social Sciences, 8*(10), 159–170. https://doi.org/10.4236/jss.2020.810011

Tait, A. (2014). From place to virtual space: Reconfiguring student support for distance and e-learning in the digital age. *Open Learning, 29*(2), 85–100.

Tallent-Runnels, M. K. *et al.* (2006) 'Teaching Courses Online: A Review of the Research', *Review of Educational Research*. Sage Publications, CA: Thousand Oaks, CA, 76(1), pp. 93–135. https://doi.org/10.3102/00346543076001093

Teane, F. M. (2024). Technological literacy and its influence on teachers' adoption of a blended learning approach. *Reading & Writing-Journal of the Reading Association of South Africa*, *15*(1), 426. https://doi.org/10.4102/rw.v15i1.426

Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). *Thematic analysis*. In C. Willig & W. Stainton Rogers (Eds.), *The SAGE Handbook of Qualitative Research in Psychology* (2nd ed., pp. 17–37). London: SAGE.

Thurab-Nkhosi, D. (2018). Implementing a blended/online learning policy on a face-to-face campus: perspectives of administrators and implications for change. *Journal of Learning for Development, 5*(2). https://doi.org/10.56059/jl4d.v5i2.273

Tomesko, J., Cohen, D., & Bridenbaugh, J. (2022). Using a virtual flipped classroom model to promote critical thinking in online graduate courses in the United States: a case presentation. *Journal of Educational Evaluation for Health Professions*, *19*, 5. https://doi.org/10.3352/jeehp.2022.19.5

Toquero, C. M. (2020). Challenges and Opportunities for Higher Education amid the COVID-19 Pandemic: The Philippine Context. *Pedagogical Research, 5*(4), em0063. https://doi.org/10.29333/pr/794

Torraco, R. (2016). Writing integrative literature reviews. *Human Resource Development Review, 15*(4), 404-428. https://doi.org/10.1177/1534484316671606

Tran, T. (2024). Blended learning in efl classrooms at a Vietnamese university from students' perspectives. *International Journal of Tesol & Education, 4*(2), 99-117. https://doi.org/10.54855/ijte.24426

Tshabalala, M., Ndeya-Ndereya, C., & van der Merwe, T. (2014). Implementing blended learning at a developing university: Obstacles in the way. *Electronic Journal of e-Learning*, *12*(1), 101-110.

Tu, Y., Wang, Q., & Huang, C. (2025). Facilitating students' emotional engagement in synchronous online learning: A systematic literature review. *The International Review of Research in Open and Distributed Learning*, *26*(1), 261-282. https://doi.org/10.19173/irrodl.v26i1.7732

UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. Paris: UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000379707

UNESCO. (2020). *COVID-19: How the UNESCO Global Education Coalition is tackling the biggest learning disruption in history.* https://en.unesco.org/news/covid-19-how-unescoglobal-education-coalition-tackling-biggest-learning-disruption-histo

United Nations Education, Scientific and Cultural Organisation. (2020). COVID-19 impact on education. https://en.unesco.org/covid19/educationresponce

United Nations Educational, Scientific and Cultural Organization. (2015). *Rethinking education: towards a common global good*? UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2017). *Unpacking SDG4-Education 2030*. UNESCO.

University of South Africa. (2008). *Open and distance learning policy*. University of South Africa. Pretoria

Usmani, S. (2021). COVID-19 Pandemic and Blended Learning: A Quantitative Assessment of Revised Community of Inquiry (RCoI) Framework. *Journal of Education and Educational Development 8*(2), 338-358. http://dx.doi.org/10.22555/joeed.v8i2.544

Vasantan, P. (2021). Blended learning strategies as knowledge management in underdeveloped area. https://doi.org/10.4108/eai.14-9-2020.2304611

Vaughan, N. (2007). Perspectives on blended learning in higher education. *International Journal on E-Learning, 6*, 81-94.

Vaughan, N. D., Dell, D., Cleveland-Innes, M., & Garrison, D. R. (2023). *Principles of Blended Learning: Shared Metacognition and Communities of Inquiry*. Athabasca University Press. https://doi.org/10.15215/aupress/9781771993920.01

Vaughan, N., & Garrison, R. (2019). How blended learning can support a faculty development community of inquiry. *Online Learning, 10*(4). https://doi.org/10.24059/olj.v10i4.1750

Voci, E., & Young, K. (2001). Blended learning working in a leadership development programme. *Industrial and Commercial Training*, *33*(5), 157-160

Wallace, S., Schuler, M., Kaulback, M., Hunt, K., & Baker, M. (2021). Nursing student experiences of remote learning during the COVID-19 pandemic. *Nursing Forum, 56*(3), 612–618. https://doi.org/10.1111/nuf.12568

Wang, Y., Han, X., & Yang, J. (2015). Revisiting the blended learning literature: Using a complex adaptive systems framework. *Journal of Educational Technology & Society, 18*(2), 380–393. Retrieved from https://www.j-ets.net/ETS/journals/18_2/28.pdf

Weiss, C. and Johnson-Koenke, R. (2023). Narrative inquiry as a caring and relational research approach: adopting an evolving paradigm. *Qualitative Health Research, 33*(5), 388-399. https://doi.org/10.1177/10497323231158619

Wentling, T. L., Waight, C., Gallaher, J., La Fleur, J., Wang, and C., Kanfer, A. (2000), Elearning - A Review of Literature. Available at http://learning.ncsa.uiuc.edu/papers/elearnlit.pdf

Westerlaken, M., Christiaans-Dingelhoff, I., Filius, R. M., De Vries, B., De Bruijne, M., & Van Dam, M. (2019). Blended learning for postgraduates: an interactive experience. *BMC Medical Education*, *19*(1), 289. https://doi.org/10.1186/s12909-019-1717-5

Wijaya, K. (2022). Investigating Indonesian EFL Teachers' Perceptions on Blended Learning Strategy Amid Post-Covid-19 Era. *SAGA: Journal of English Language Teaching and Applied Linguistics*, *3*(1), 1-12. https://doi.org/10.21460/saga.2022.31

Wong, L., Tatnall, A., & Burgess, S. (2014). A framework for investigating blended learning effectiveness. *Education + Training, 56*(2/3), 233-251. https://doi.org/10.1108/et-04-2013-0049

Yan, Y., Feng, C., & Leong, L. K. B. (2023). Complex adaptive blended learning for higher GIS education: A theory-driven pedagogy moving forward after the pandemic. *Transactions in GIS*, *27*(5), 1479–1502. https://doi.org/10.1111/tgis.13084

Yang, D., Tang, Y., Hayashi, R., Ra, S., & Lim, C. (2022). Supporting inclusive online higher education in developing countries: lessons learnt from Sri Lanka's university closure. *Education Sciences, 12*(7), 494. https://doi.org/10.3390/educsci12070494

Yang, S., Kim, J., & Song, R. (2020). Doubly robust inference when combining probability and non-probability samples with high dimensional data. *Journal of the Royal Statistical Society Series B (Statistical Methodology), 82*(2), 445-465. https://doi.org/10.1111/rssb.12354

Yin, R. K. (2003). Designing case studies. *Qualitative research methods*, *5*(14), 359-386.

Yin, R. K. (2012). *APA Handbook of Research Methods in Psychology.* American Psychological Association.

Yu, T., & Richardson, J. C. (2015). Examining Reliability and Validity of a Korean Version of the Community of Inquiry Instrument Using Exploratory and Confirmatory Factor Analysis. *The Internet and Higher Education, 25*, 45-52. https://doi.org/10.1016/j.iheduc.2014.12.004

Yusuf, A., Aditya, R. S., AlRazeeni, D. M., AlMutairi, R. L., Solikhah, F. K., Kotijah, S., & Nurbadriyah, W. D. (2023). Community of inquiry Framework Combined with Podcast Media in Nursing Education innovation During Covid-19 Pandemic: An Evaluative Study. *Advances in Medical Education and Practice*, *Volume 14*, 573–584. https://doi.org/10.2147/AMEP.S409209

Zhang, Y., Llorente, A., & Sánchez-Gómez, M. (2021). Digital competence in higher education research: a systematic literature review. *Computers & Education*, *168*, 104212. https://doi.org/10.1016/j.compedu.2021.104212

Zimmerman, T. D., & Nimon, K. (2017). The Online Student Connectedness Survey: Evidence of Initial Construct Validity. *The International Review of Research in Open and Distributed Learning, 18*, 25-46. https://doi.org/10.19173/irrodl.v18i3.2484

ANNEXURES

Annexure 1: Interview Schedule Instrument

Section A: Demographic Information

1. **Age:**

☐ 25 – 34 years
☐ 35 – 44 years
☐ 45 – 54 years
☐ 55 – 64 years
☐ 65 years and above

2. **Gender:** ☐ Male ☐ Female ☐ Prefer not to say
3. **Highest Educational Qualification:**
   ☐ Diploma
   ☐ Bachelor's Degree
   ☐ Master's Degree
   ☐ PhD
   ☐ Other (please specify): _____
4. **Academic Rank/Position:**
   ☐ Lecturer
   ☐ Senior Lecturer
   ☐ Associate Professor
   ☐ Professor
   ☐ Other (please specify): _____
5. **Institution Type:**
   ☐ Public University
   ☐ Private University
   ☐ College
   ☐ Other (please specify): _____

Professional Experience

6. **Years of Teaching Experience at University**

☐ 1 – 5 years
☐ 6 – 10 years
☐ 11 – 15 years
☐ 16 – 20 years
☐ 21 years and above

7. **Years of Experience in Blended Learning:**

☐ Less than 1 year
☐ 1 – 3 years
☐ 4 – 6 years
☐ 7 years and above

8. **Subjects/Courses Taught:** _____

9. **Level of Students Taught:**
   ☐ Undergraduate
   ☐ Postgraduate
   ☐ Both

Section B (For research questions 2, 4 & 5)

1. What are the perceived benefits of blended learning for both students and lecturers in higher education? (R2)
2. What challenges have you encountered in implementing blended learning in your courses? (R2)
3. How would you assess the availability and adequacy of technology and infrastructure (e.g., internet access, learning management systems) necessary for blended learning in your institution? (R2)
4. What training and support do lecturers need to implement blended learning effectively? Have you received any such training or support?(R4)
5. What strategies do you currently use to support students in your blended learning courses? (R4)
6. What kind of resources do you find most effective in supporting your students?(R4)

7. How do the current institutional policies and strategies support or hinder the implementation of blended learning? (R4)
8. What suggestions would you offer to improve the implementation of blended learning in your institution? (R5)
9. In your opinion, what are the key elements of successful learner support in a blended learning environment? (R4)

Annexure 2: Questionnaire

Dear Participant,
I am Setho, a PhD candidate at UNISA conducting research on the *Possibilities of blended learning in higher education institutions in Lesotho* under the supervision of Prof Mpho-Entle Modise from the University of South Africa. This study aims to explore how blended learning is currently implemented and to understand the factors influencing its success.
I kindly request your participation in this study by completing the attached questionnaire. Your responses will provide valuable insights that can inform policy, teaching methods, and student support systems within our universities.

What is Blended Learning?
Blended learning is a teaching approach that combines traditional face-to-face classroom methods with online learning activities, which are thoughtfully integrated to enhance the teaching and learning process. It allows students to have some control over the time, place, pace, or path of their learning.
Who can participate in the research?
Any student currently enrolled part-time (Blended/distance learning) at the university can participate in this research. Please note that participation is entirely voluntary. If you decide to participate, you may withdraw from the online survey at any time without giving a reason.
What will I be asked to do?
You are only requested to respond to the questions in this online survey below.
How will the information collected be used?
We are collecting data using this survey system. No identifying information like your name, email address, location, or IP address will be asked or kept. Your safety and privacy will be protected fully. All information collected will be anonymous and confidential. All collected information will be stored securely with the researchers and kept for five years in the password-protected computer.

Only the two researchers of this project will have access to the survey results, no personal data will be identified in any report or articles produced from this study.
It will take you about **10 minutes** to complete this survey. By filling out the questionnaire, you agree and consent to participate in this study.

Thank you for participating in this research.

DEMOGRAPHIC INFORMATION
Which option best describes your gender?

- Male
- Female
- Prefer not to say

Which category best describes your age?

- Less than 30 years
- 31 – 40
- 41 – 50
- 50 and Above

What is your highest education level?

- Secondary/High School
- Certificate
- Diploma
- Bachelor Degree
- Honours
- Masters
- Doctorate Degree

In which Institution type are you currently enrolled?

- Public University
- Private University
- College
- Other

How many years have you been a blended/distance education learner?

- 1
- 2
- 3
- More than 4 years

TEACHING PRESENCE

Design & Organization	**strongly disagree**	**disagree**	**neutral**	**agree**	**strongly agree**
1. The lecturers clearly communicated important course topics.					
2. The lecturers clearly communicated important course goals.					
3. The lecturers provided clear instructions on how to participate in course learning activities.					
4. The lecturers clearly communicated important due dates/time frames for learning activities.					

Facilitation	**strongly disagree**	**disagree**	**neutral**	**agree**	**strongly agree**
5. The lecturers were helpful in identifying areas of agreement and disagreement on course topics that helped me to learn.					
6. The lecturers were helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking					
7. The lecturers helped to keep course participants engaged and participating in productive dialogue.					
8. The lecturers helped keep the course participants on task in a way that helped me to learn.					
9. The lecturers encouraged course participants to explore new concepts in this course.					
10. Lecturers actions reinforced the development of a sense of community among course participants					

Direct Instruction	**strongly disagree**	**disagree**	**neutral**	**agree**	**strongly agree**
11. The lecturers helped to focus discussion on relevant issues in a way that helped me to learn.					
12. The lecturers provided feedback that helped me understand my strengths and					

weaknesses relative to the course's goals and objectives					
13. The lecturers provided feedback in a timely fashion					

SOCIAL PRESENCE

Affective Expression	**strongly disagree**	**disagree**	**neutral**	**agree**	**strongly agree**
14. Getting to know other course participants gave me a sense of belonging in the course.					
15. I was able to form distinct impressions of some course participants					
16. Online or web-based communication is an excellent medium for social interaction.					

Open Communication	**strongly disagree**	**disagree**	**neutral**	**agree**	**strongly agree**
17. I felt comfortable conversing through the online medium.					
18. I felt comfortable participating in the course discussions.					
19. I felt comfortable interacting with other course participants.					

Group Cohesion	**strongly disagree**	**disagree**	**neutral**	**agree**	**strongly agree**
20. I felt comfortable disagreeing with other course participants while still maintaining a sense of trust.					
21. I felt that my point of view was acknowledged by other course participants.					

22. Online discussions help me to develop a sense of collaboration.					

COGNITIVE PRESENCE

Triggering Event	**strongly disagree**	**disagree**	**neutral**	**agree**	**strongly agree**
23. Problems posed increased my interest in course issues.					
24. Course activities piqued my curiosity.					
25. I felt motivated to explore content related questions.					

Exploration	**strongly disagree**	**disagree**	**neutral**	**agree**	**strongly agree**
26. I utilized a variety of information sources to explore problems posed in this course.					
27. Brainstorming and finding relevant information helped me resolve content related questions					
28. Online discussions were valuable in helping me appreciate different perspectives					

Integration	**strongly disagree**	**disagree**	**neutral**	**agree**	**strongly agree**
29. Combining new information helped me answer questions raised in course activities.					
30. Learning activities helped me construct explanations/solutions.					
31. Reflection on course content and discussions helped me					

understand fundamental concepts in this class					

Resolution	**strongly disagree**	**disagree**	**neutral**	**agree**	**strongly agree**
32. I can describe ways to test and apply the knowledge created in this course.					
33. I have developed solutions to course problems that can be applied in practice.					
34. I can apply the knowledge created in this course to my work or other non-class related activities.					

Annexure 3: Participants email invitation letter

Title: EXPLORING THE POSSIBILITIES OF BLENDED LEARNING IN HIGHER EDUCATION INSTITUTIONS IN LESOTHO

DEAR _____ (Name of participant)

My name is Setho Mokhets'engoane. I am doing research under the supervision of Prof. Mpho-Entle Modise 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 *Exploring the possibilities of blended learning in higher education institutions in Lesotho*. This is expected to collect information that could provide a deeper understanding of blended learning. The research aims to help higher education institutions in Lesotho adopt and promote blended learning by incorporating stakeholder perspectives and developing practical guidelines. This will equip them with the necessary knowledge and tools to create a more inclusive, adaptable, and technologically advanced educational environment for realizing blended learning.

You are invited because of your experience in blended learning environment. About 12 participants will be involved in this study for the interview parts. You are among the participants that will be involved in the interview. You will be required to participate in a 45minute interview session which will be audio-recorded. The interview questions are attached.

Your participation in this study is voluntary and you are under no obligation to consent to participate. There are no foreseeable risks or discomfort anticipated to any participants. 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. You have the right to insist that your name will not be recorded anywhere and that no one, apart from the researcher and identified members of the research team, will know about your involvement in this research. There will be no disbursement or any incentives for participation in the research. This study has received written approval from the Research Ethics Review Committee of the University of South Africa. A copy of the approval letter can be obtained from the researcher if you so wish.

On completion of this study, a summary of findings will be sent to you through your email and full copy of the thesis will be sent to you on request through my mobile phone, 57226279. If you have any questions or concerns about how the study has been conducted, you can reach me on the above contact details or my supervisor via his phone number +27 794890018 or her email modismp@unisa.ac.za

Thank you for taking time to read this information sheet and for participating in this study.

Annexure 4: Ethical Clearance Certificate

UNISA university of south africa

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 12 October 2024

Ref: **2024/10/12/000000231/05/RB**
Name: **Setho Mokhets'engoane**
Student No.: **24666300**

Decision: Ethics Approval form

Dear **Setho Mokhets'engoane**

Researcher(s): Name: **Setho Mokhets'engoane**
E-mail address: 24666300@mylife.unisa.ac.za
Telephone: **(+266) 57226279**

Supervisor: Name: **Prof. MP Modise**
E-mail address: modismp@unisa.ac.za
Telephone: **+27 794890018**

Title of research: *EXPLORING THE POSSIBILITIES OF BLENDED LEARNING IN HIGHER EDUCATION INSTITUTIONS IN LESOTHO.*

Qualification: PhD in Open and Distance Learning

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 **2024/10/12** to **2029/10/12**.

*The **write risk level** application was reviewed by the Ethics Review Committee on **12 September 2024** 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 will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached.
2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

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

3. 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.
4. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
5. 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.
6. 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.
7. 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.
8. No field work activities may continue after the expiry date **2029/10/12.** Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2024/10/12/00000231/05/RB** *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Kind regards,

Prof RB Monyai
Acting Head: CEDU Research
monyarb@unisa.ac.za

Prof Mpine Makoe
Executive Dean: CEDU
gakisme@unisa.ac.za

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

Annexure 5: Letters to request permission to conduct research at Institution A

School of Educational Studies
College of Education
University of South Africa

23 July 2025

Registrar
Institution A
Maseru, Lesotho
Dear Sir/Madam

Request for Permission to conduct research at Institution A

I, Setho Mokhets'engoane, am researching under the supervision of Mpho-Entle Modise (modismp@unisa.ac.za), a Professor in the Department of Curriculum and Instructional Studies towards a PhD at the University of South Africa. I kindly request for permission to conduct research on; *Exploring the Possibilities of Blended Learning in Higher Education Institutions in Lesotho.*

The study aims to improve the teaching and learning practices in HEIS through exploring effective ways for successful implementation of blended learning. The research further aims to help higher education institutions in Lesotho adopt and promote blended learning by incorporating stakeholder perspectives and developing practical guidelines. This will equip them with the necessary knowledge and tools to create a more inclusive, adaptable, and technologically advanced educational environment for realising blended learning.
The study will entail the distribution of questionnaires to selected students (50) and lecturers (4) for the interviews. Specifically, the findings of this study have the potential to improve the quality of education provided by HEIs in Lesotho as best practices for learner support in blended and e-learning learning environments will be discovered. Furthermore, the study hopes to propose a model/framework that could facilitate effective implementation of blended learning in HEIs in Lesotho.

There are no potential risks entailed in conducting this study. Pseudonyms will further be used to ensure anonymity of the Institution and the participants.
I am looking forward to your positive response.

Yours faithfully

Setho Mokhets'engoane
(+266 57226279)

Annexure 6: Consent Form

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 (or had explained to me) 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 audio recording of the interview.
- I have received a signed copy of the informed consent agreement.

_____ _____

Participant's Name & Surname (please print) Participant's Signature & Date

_____ _____

Researcher's Signature & Date

Annexure 7: Example of transcribed interview

Researcher: Thank you for joining me today. To start off, how do you understand or define blended learning in your own teaching practice?
Lecturer: Well, I see blended learning mainly as flexibility. It gives students the chance to learn at their own pace and revisit material when they need to. That really improves their understanding and helps with retention. In a normal class, you can't always go back over everything, but online resources make that possible. It also helps me as a lecturer—I can use videos, slides, and even online discussions so that my teaching doesn't stay one-dimensional.
Researcher: Interesting. And when you try to implement blended learning, what challenges do you face?
Lecturer: (laughs) There are quite a few. The biggest one is the LMS. Yes, we have one, but it's not very user-friendly. Once too many students log in, it either freezes or crashes. That discourages both us and the students. Another issue is that some students are using old or outdated devices, so even if I upload something, they can't always access it properly.
Researcher: I see. So in terms of infrastructure and technology, how would you say your institution is doing?
Lecturer: Honestly, infrastructure is still weak. The LMS, as I said, is unstable, and students from rural areas suffer even more because of poor connectivity. Even those who want to engage find it unreliable. In the end, only the students with better resources get the full benefit, which creates inequality.
Researcher: That makes sense. And what about training—both for lecturers and students? Have you received any support in that regard?
Lecturer: Training is critical, but most of us have just been figuring things out as we go. I've attended one or two workshops, but they were very brief. You come out still unsure about how to integrate everything properly. We need continuous training, not just once-off sessions. That way we'd be more confident to try new methods without worrying that we're making mistakes.
Researcher: Let's talk about your students now. What do you actually do to support them in blended learning environments?
Lecturer: I try to be very organized. I put resources in the LMS step by step so that students don't get lost. I also give them different formats, sometimes slides, sometimes audio, sometimes links to videos. Students have different preferences, so I think variety helps. But timeliness is key. If you upload resources late, students fall behind quickly, and then they lose motivation.
Researcher: And in your experience, which resources work best?
Lecturer: Multimedia always seems to work better. Students love videos and podcasts because they can pause and replay them when revising. Online quizzes are also very

effective. They let students check their progress and prepare themselves before the big exams.

Researcher: That's helpful. Now, looking at your institution's policies on blended learning, would you say they are supportive?

Lecturer C: On paper, yes. In reality, not so much. The policies are vague; they don't clearly say which platforms to use. That means each lecturer experiments in their own way, which leads to inconsistency. It makes some colleagues reluctant to fully adopt blended learning.

Researcher: What changes would you suggest then to make blended learning work better?

Lecturer: First, the institution should fix the infrastructure, especially the LMS. Then, both lecturers and students should get proper training at the beginning. If students feel confident with digital tools and lecturers have ongoing training, the whole process becomes smoother and more sustainable.

Researcher: And finally, from your perspective, what do you think are the most important elements of learner support in blended learning?

Lecturer: Learner support needs to be threefold. Academically, students need clear instructions, timely resources, and opportunities to practice with quizzes or assignments. Technically, they need training in ICT basics and access to a helpdesk when things go wrong. And psychosocially, they need encouragement and regular check-ins so they don't feel like they're on their own. If those three supports are in place, blended learning becomes much more effective and inclusive.

Annexure 8: Selected Emergent themes and sub-themes from the interviews

Theme	Sub-theme (Code)
Infrastructure and Technology	Lack of Suitable Gadgets
	Inadequate/Absent LMS
	Unreliable Internet Access
	Poor Infrastructure in Remote Areas
Digital Literacy & Competence	Limited Student Digital Literacy
	Lack of Technological Skills among Learners
	Technophobia among Students
	Lecturers' Limited Competencies
Training and Professional Development	Need for Continuous Training
	Inadequate/One-off Training
	Absence of Institutional Training Programs
	Peer Support and Mentorship
Institutional Policies and Support	Policies Lack Clarity/Enforcement
	Blended Learning Only During Crises
	Limited Institutional Incentives
Student Motivation and Engagement	Decline in Student Motivation Online
	Difficulty Engaging in Online Discussions
	Poor Time Management

Annexure 9: Cronbach Alpha Values

Items	Cronbach Alpha	Std. Alpha
All items	0.9761	0.9777
Q1	0.9759	0.9776
Q2	0.9757	0.9775
Q3	0.9756	0.9773
Q4	0.9756	0.9774
Q5	0.9792	0.9798
Q6	0.9754	0.9772
Q7	0.9752	0.977
Q8	0.9752	0.977
Q9	0.9752	0.977
Q10	0.9752	0.977
Q11	0.9753	0.9771
Q12	0.9753	0.9771
Q13	0.9752	0.977
Q14	0.9751	0.9769
Q15	0.9751	0.9769
Q16	0.9754	0.9772
Q17	0.9751	0.9769
Q18	0.975	0.9767
Q19	0.9751	0.9768
Q20	0.9761	0.9778
Q21	0.9752	0.9769
Q22	0.9751	0.9768
Q23	0.9752	0.977
Q24	0.9747	0.9765
Q25	0.9747	0.9765
Q26	0.9749	0.9766
Q27	0.9749	0.9767
Q28	0.9752	0.9769

Q29	0.9751	0.9768
Q30	0.9752	0.9769
Q31	0.9751	0.9768
Q32	0.9751	0.9769
Q33	0.9754	0.9771
Q34	0.9751	0.9768

Annexure 10: Turnitin Report

Similarity Report

PAPER NAME
Turnitin Report.docx

AUTHOR
SETHO JOHN MOKHETSENGOANE

WORD COUNT
71022 Words

CHARACTER COUNT
432538 Characters

PAGE COUNT
230 Pages

FILE SIZE
1.5MB

SUBMISSION DATE
Nov 14, 2025 11:58 AM GMT+2

REPORT DATE
Nov 14, 2025 12:21 PM GMT+2

20% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

- 9% Internet database
- 15% Publications database
- Crossref database
- Crossref Posted Content database
- 13% Submitted Works database

Excluded from Similarity Report

- Manually excluded sources

Annexure 11: Proof of Editing

THE NATIONAL UNIVERSITY OF LESOTHO

Telephone: +266 22340601
+266 52213632
+266 52213639
Fax : +266 22340000
Website: http://www.nul.ls

P.O. Roma 180
Lesotho
Southern Africa

FACULTY OF EDUCATION

23 November 2025

The Supervisor
Department of Curriculum and Instructional Studies
University of South Africa

Dear Supervisor

Re: Proof of language editing

This letter certifies that I read and edited Setho Mokhets'engoane's PhD Thesis titled ***Exploring the possibilities of blended learning in higher education institutions in Lesotho.*** This ensured that the Thesis meets the required standards of language and academic writing.

Sincerely,

Mahao Mahao (PhD)
Senior Lecturer - Department of Language and Social Education
Faculty of Education,
National University of Lesotho
mahaomahao05@gmail.com
+266 58730927