LECTURERS' PERSPECTIVES ON THE READINESS TO IMPLEMENT ONLINE TEACHING AND LEARNING AT ONE SELECTED TVET COLLEGE IN JOHANNESBURG

By

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submitted in accordance with the requirements

for the degree of

MASTER OF EDUCATION

in the subject

EDUCATION MANAGEMENT

at the

UNIVERSITY OF SOUTH AFRICA

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SEPTEMBER 2024

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I declare that the above dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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DEDICATION

This work is dedicated to all my family members, especially my dear mother, Pulane Mokgatlhe, my aunt Puseletso Megalane and lastly, my sister Pontsho Mokgatlhe, who have been the foundation behind this pivotal achievement in my life. I love you all and may the good Lord bless you abundantly. I thank God for giving me knowledge, courage and strength in my studies throughout my journey.

ACKNOWLEDGEMENT

I am grateful to God for his endless presence, guidance and wisdom during this challenging, yet rewarding journey of my academic career. I am nothing without you, my God.

The completion of this thesis represents a momentous milestone in my life. As a child, I dreamed of one day being part of the many intellectuals all over the world who are helping to shape our world. It gives me great joy to mention that the successful completion of this work was made possible through the help and cooperation I received from different people. My sincere gratitude goes to my supervisor Dr Ogina T.A for her dedication and encouragement throughout this journey. She went out of her way to give me guidance, support, expert advice, insight and constructive criticisms throughout my research study. Your passion and patience is inspiring and I would like to express my appreciation for making my study a success. Finally, to God be the glory for he has done great things in my life.

ABSTRACT

The purpose of this research study was to explore lecturers' perspectives on the readiness to implement online teaching and learning at one selected TVET college in Johannesburg. The study followed the qualitative approach and employed the case study design. The theoretical framework that underpinned this study was the E-learning system. The participants of the study included 10 lecturing staff members from different departments who were purposefully selected. Semi-structured interviews were conducted to generate data from the participants. A chosen time and date for interviews were agreed by both the researcher and participants. The researcher used inductive approach, and thematic analysis procedure in doing data analysis. The findings of the study show that some lecturers' perspectives on the readiness to implement online teaching and learning were positive, while others were negative. Lecturers who participated in the study reported that the challenges that may hinder the readiness to implement online teaching and learning were lack of training, limited connectivity which was mostly college-based as well as lack of resources such as computers/laptops for students. Recommendations from participants included material support, skills development, financial support and motivation.

Keywords: TVET Colleges, online teaching and learning, connectivity, readiness, E-learning.

LIST OF ACRONYMS

DHET	Department of Higher Education and Training
TVET	Technical and Vocational Education and Training
FET	Further Education and Training
NC (V)	National Certificate Vocational
IT	Information Technology
NATED	National Accredited Technical Education Diploma
WBL	Web Based Learning
UNISA	University of South Africa

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CHAPTER ONE

ORIENTATION OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND

TVET colleges are tertiary institutions that train students to work in a technical or vocational field where they are taught basic skills to perform tasks (Mabunda & Frick, 2020). The Further Education and Training (FET) Act 98 of 1998 enabled the establishment of Technical Vocational Education and Training (TVET) colleges in South Africa in 2002 (Terblanche, 2017). In the South African education system, TVET colleges were introduced in 2012 to be in line with international trends and standards (Denhere & Moloi, 2021). The TVET college system can promote labour productivity and labour market access (Badenhorst & Radile, 2018). Students who do not get access to universities can enrol at TVET colleges, and qualifications such as Nated and National Certificate Vocational (NC(V) courses are offered in these colleges (Du Plooy & Du Preez, 2022). Nated enrols students who have completed grade 12 and have acquired their higher certification entry requirements, whereas NC(V) enrols students who, instead of completing Grades 9 to 12 at a school, they can enrol at a TVET college and apply to one of the various courses offered (Garraway, Bronkhorst & Wickham, 2015).

Teaching is a process in which the role of teachers is inevitable (Celik & Yildiz, 2017). Teachers/lecturers/facilitators transmit knowledge to students who can then apply it (Bada & Olusegun, 2015). Learning is a process whereby transformation of experience and knowledge is created (Watson et al., 2019). Positive attitude and a sense of responsibility can yield great results to students learning outcomes (Heitink et al., 2016). I share the same sentiments with the above statement, which is further supported by Brydon-Miller (2018), who discovered that positive learning is constituted by student autonomy in learning. Online teaching and learning is as important; and is discussed below.

1.1.1 Programmes provided in TVET colleges

TVET colleges in South Africa provide two programmes, namely: Nated and NC(V) programmes. These programmes are provided by the Department of Higher Education and Training (DHET) to ensure that students who are unable to get to universities have an opportunity to enrol at one of the TVET colleges to further their studies, which offer hands-on training. The programmes are explained below.

1.1.2 National Accredited Technical Education Diploma (NATED) programmes

Nated or Report 191 offers programme (N1-N6) qualifications traditionally linked to apprenticeships by the Manpower Training Act of 1981 (Papier et al., 2017). There are three streams offered in TVET colleges, namely: (i) engineering studies which include electrical, mechanical and civil engineering, among others. (ii) The second stream is business studies, which includes business management, marketing management, financial management and management assistant. (iii) The third stream is utility studies, and includes programmes such as hospitality, tourism and edu-care studies (Sixabayi, 2016). These programmes are offered on a trimester or semester basis and have a pass mark of 40% (Sebola, 2022). After the completion of N6, Nated programmes enable students to be self-employed or get formal employment

1.1.3 *National Curriculum Vocational NC(V) programmes*

National Accredited Technical Education Diploma (NATED) programmes provide an opportunity for school leavers to acquire qualifications so that they can get employment (Salleh et al., 2017). The National Qualifications Framework (NQF) places NC(V) vocational programmes at levels 2, 3 and 4 (DHET, 2011). Some students may feel that they do not perform well at school, but instead of dropping out, they can get hands-on experience in the field by enrolling at a TVET college. A student can do this while gaining a qualification simultaneously.

TVET colleges allow students the opportunity to gain knowledge and skills in different trades and different levels. The NC(V) curriculum has seven subjects from level 2 up to level 4. F ive vocational subjects should be passed at 50%. The pass mark for English and Life Orientation is 40%, and for Mathematics/Mathematics Literacy is 30% (Sebola, 2022). These are pass percentages required at a TVET college

1.1.4 Intention of TVET colleges

According to Pongo et al. (2014), the intention of TVET colleges is to cater for the needs of students in all socio-economic levels and to prepare them for gainful employment in the future. Institutions of TVET offer courses at certificate and diploma levels. The intention of these colleges is to provide skills and knowledge for both personal and career development (Ibrahim et al., 2015). TVET colleges intend to produce and develop graduates for knowledge in the labour market and skills. In Africa, the broader objective and intention of TVET education is to ensure the promotion of life-long learning, to ensure the employability of students, improve coherence and to deliver quality education (Gyimah, 2020). Entrepreneurship through the TVET education curriculum also enhances and develop student competencies to start businesses after graduation (Alamineh, 2020).

Some students may feel that they do not perform well at school. Instead of dropping out, they can get hands-on experience in the field of their choice when enrolled in NC(V) courses. A student can do such a course and gain a qualification simultaneously. At TVET colleges, students get the opportunity to gain knowledge and skills of different trades and different levels. The trades include artwork, medical services accounts, law and others (Obwoge & Kwamboka, 2016). There are different modes of delivery such as traditional face-to-face classes as well as virtual or online teaching and learning mode**.** Online teaching and learning are a distance education mode of learning that uses the internet and web-based materials (Sadiku et al., 2018). Francois (2015) explains it as a term that describes distance or correspondence courses offered over the internet. Alenezi (2020) describes it as a platform which increases knowledge and performance using internet technology. Furthermore, in America, 6.7 million students are enrolled in online courses given its availability and flexibility (Allen & Seaman, 2013). The benchmark for quality education in the fourth industrial revolution (4IR) provided change in the education using technology both nationally and internally (Yende, 2021). The transition to the fourth industrial revolution (4IR) in the South African education sector was greatly influenced by online teaching and learning, which is fundamental for transforming society (Monareng, et al., 2020). It is for this reason that the researcher of this study was motivated to explore lecturers' perspectives as an important need to be fulfilled to enable and promote online education (Nambiar, 2020). The aim of online

strategies is to provide positive experiences such as students' discussions and presentations, sharing resources and participation in group work (Martin & Bolliger, 2018). It is therefore important to explore a variety of methods to investigate the advancement in educational technology using online teaching and learning (Kentnor, 2015). 90% of all universities globally strive to offer distance teaching and learning opportunities to their students, which is often done through virtual media (Mayer & Clark, 2003). Since the usage of the platform has increased, many students prefer this mode of delivery compared to the usual face-to-face contact sessions.

The concept of teaching and learning style means the way in which students interact and comprehend the subject matter, which leads to understanding what is being taught. Willingham, Hughes and Dobolyi (2015) describe learning styles as the different preferred ways of processing information. It means that lecturers should consider a variety of teaching and learning styles when preparing online lessons for students using social network sites (Chen, 2015). For successful implementation of this electronic learning style, lecturers need first to identify the requirements of students and be able to cater for them accordingly (Abrol & Jain, 2022). Colleges should also implement various teaching and learning styles and ensure that students and lecturers are fully trained for readiness. This means that lecturers should be well equipped and skilled to fully utilise electronic learning. The use of technology in teaching and learning is embraced by educationists, educational researchers as well as policymakers globally; therefore, appropriate skills development culture is necessary at tertiary colleges. Work culture has changed due to recent advancement and innovation in the use of computers at varsity colleges worldwide (Angers & Machtmes, 2005). The increase in the use of technology in teaching and learning is evident in tertiary institutions. Lecturers are expected to develop skills that could enable them to use technology in their teaching. Palvia et al. (2018) assert that lecturers should embrace and adapt to the use of technology to be in line with global trends.

The use of technology provides an opportunity for lecturers to reimagine teaching and learning (Heflin et al., 2017). In the classroom situation, the attitude, motivation and confidence of lecturers determine the way they integrate teaching and learning

with Information and Communications Technology (ICT). The self-efficacy of lecturers in using technology also depends on the training, and the development of skills for readiness in incorporating technology in their teaching and learning. Current educational institutions are trying to minimise the technology gap by restructuring technology and recognising its impact on online programmes (Ratheeswari, 2018).

Change management is an important factor that ensures readiness in activities, processes and a variety of approaches to online teaching and learning (Muamar et al., 2023). Readiness, however, ensures that online teaching and learning is implemented successfully, and that lecturers and students are competent enough to utilise most online resources and materials. E-learning readiness ensures that both the students and lecturers can use online teaching and learning technologies (Hashim & Tasir, 2014). The readiness in the use of technology can be assessed through the kind of available infrastructure, human resources available, finance budgeted for the infrastructure, institutional climate and subject content (Azimi, 2013). Many countries especially in sub-Sahara struggle with transitioning to online technologies (Qayyum & Zawacki-Richter, 2019). Revolution in technology has greatly affected the education systems across the globe. The process or methodology of learning has been forced to change to meet the needs of technology for the present generation. The transitioning to digital education platforms requires a systemic change in the education system. However, challenges still need to be addressed before making a change in the way teaching and learning is done in educational institutions. In this study, the focus is on a TVET College, which is situated in Metropolitan District, Gauteng Province. The researcher explored perspectives of lecturers at a TVET College in Johannesburg regarding their readiness to implement online teaching and learning.

1.2 RESEARCH PROBLEM

TVET colleges play a major role in developing artisans to meet the need for human resource in many countries (Loynes, 2016). Mpondomse (2016) asserts that TVET colleges can train and develop skilled labour force that could reduce unemployment and transform societal status of the socio-economy. TVET colleges however poses

challenges in the delivery, and the goal is to provide insight that would inform lecturers at TVET colleges on issues regarding technological usage as the new norm in education.

Lecturers have however not received adequate training in online learning (South Africa, Department of Higher Education and Training, 2014). Inadequate training creates a gap in knowledge of what lecturers need to do to implement technology in teaching and learning. Another perception from lecturers which is a challenge is poor support from government with regards to infrastructure as this also delays the efforts of the change-over to digital learning (Madimabe & Omodan, 2021). Lecturers further perceived technology in relation to students that they also need to be trained how to use it; as they do not have basic computer knowledge and skills, and therefore find it difficult to participate in online teaching and learning (Omodan et al., 2019). The researcher concurs with Kizito (2016) that seldom the focus of many initiatives tends to be on the use of technology as opposed to the quality of digital learning. Okoye et al (2021) also state that the main challenge in the use of technology is to equip lecturers with different mechanisms of how to attain and retain learned content for current and future students. The gap in training and skills development leads to questions like “What kind of preparation is needed?” “Are the lecturers ready to use technology?” In the next section, the researcher presents the rationale of the study.

1.3 RATIONALE OF THE STUDY

The study is important because it explores and clarifies lecturers’ perspectives regarding online teaching and learning at a selected TVET College in Johannesburg. What prompted the researcher to undertake this study is that compared to Universities, TVET colleges are lacking when it comes to distance learning due to insufficient resources, skills and training. The researcher therefore identified the need to educate and impart knowledge that TVET colleges can apply to ensure that lecturers’ perspectives on online teaching and learning are changed for the better. The study offers insight that would educate lecturers at TVET colleges on issues regarding the usage of technology in digital learning as the new norm. Universities around the world have fully digitalised their operations to online

(Dhawan, 2020). South Africa is not operating in isolation but following international trends in TVET colleges.

In my experience, online teaching and learning is still yet to be developed to become an effective method in South Africa because of insufficient resources. This observation is in line with Allen and Seaman (2017), who reported that about 66% of lecturers regard contact learning more superior than digital learning. This finding shows that there is a need to explore further what is happening regarding online teaching and learning in South African tertiary colleges. The study will theoretically contribute by increasing the knowledge of how online teaching and learning can be successfully implemented and executed at TVET College. Methodologically, the study also offers a unique contribution.

1.4 PURPOSE AND OBJECTIVES OF THE STUDY

The purpose of this study is to explore perspectives of lecturers at a TVET College in Johannesburg regarding their readiness to implement online teaching and learning.

The objectives of this study are to:

- Identify online teaching and learning challenges that lecturers at TVET college experience.
- Examine how lecturers at TVET College address the online teaching and learning challenges that they experience.
- Explore the support that can be provided to lecturers at TVET College to successfully implement online teaching and learning.

1.5 RESEARCH QUESTIONS

To find solutions to the research problem in line with the purpose of the study, the section below presents the main research question and sub-questions:

Main question: What are the perspectives of lecturers at TVET College regarding their readiness to implement online teaching and learning?

The sub-questions:

- What challenges do lecturers at TVET college experience regarding online teaching and learning?

- How do the lecturers at TVET College address the challenges they experience in online teaching and learning?
- What support can be provided to lecturers at TVET College to successfully implement online teaching and learning?

1.6 THEORETICAL FRAMEWORK OF THE STUDY

A theoretical framework is a process in which a set of concepts or theories are explained to share some light on a particular phenomenon or research problem (Imenda, 2014). This assists the researcher in understanding relevance of concepts as well as ideas which relates to the research study. Transitioning to digital learning in South African TVET colleges poses challenges in the delivery, and the goal is to provide insight that would inform lecturers at TVET colleges on issues regarding technological usage as the new norm in education. Harasim (2017) emphasises the need to re-evaluate and rethink approaches and practices by reflecting on the theory of teaching and learning. Private tertiary institutions in Botswana enhanced strategies and efforts that enabled continuous online teaching and learning (Hondonga et al., 2021). South Africa does not operate in isolation in terms of technological trends but follow international trends.

According to the researcher's experience, digital education is still under-developed, and more is needed to make it an effective learning method in South Africa. Methodologically, the study also offers a unique contribution by providing nuances from participants regarding lecturers' perspectives on the readiness to implement online teaching and learning.

This study is based on the theory of e-learning system, whose authors are Aparicio, Bacao and Oliveira (2016). In other words, the e-learning pedagogical model underpin the theoretical framework of the study. This is because the e-learning theory is about knowledge acquisition which connects e-learning theory to e-learning practice (Aparicio et al., 2016). An e-learning system is an information system that integrates human entities such as students and lecturers and non-human entities such as learning management systems (Al-Fraihat et al., 2020). E-learning theory is based on three essential components which are technologies, people and services (Aparicio et al., 2016). These components allowed the researcher to achieve the purpose of the study by integrating pedagogical models

for the desired outcomes or objectives.). These systems also include various other skills such as communication, writing, storage and visualisation (Aparicio et al., 2014). The E-learning system framework is essential in guiding decisions relating to development and choices of components relating to objectives outlined in the organisational e-learning strategy.

The e-learning system informs this study by relating it to instructional strategies, learning technologies and pedagogical models or constructs that enable the management of the institution, lecturers and students to be fully ready to implement online teaching and learning. E-learning theory speaks to the activities that participants shared with the researcher in the study. And furthermore, findings from this study revelated that e-learning system used as a theoretical framework for this study was effective in generating and analysing data.

1.7 SIGNIFICANCE OF THE STUDY

The study is important because it explores and clarifies lecturers' perspectives regarding online teaching and learning at a selected TVET College. This study theoretically contributes to increasing knowledge of how online teaching and learning can be successfully implemented and executed at a selected TVET College. The study may therefore serve as a guideline to stakeholders such as the Department of Higher Education and Training, and educational policy makers by ensuring that lecturers' perspectives are recognised and taken into consideration for the effective and successful implementation of digital education in South African TVET colleges. It will offer vast knowledge in the field of online teaching and learning; and other countries can also adapt and put in place a variety of mechanisms that could ensure that lecturers at TVET colleges are ready and equipped with resources required to ensure that online teaching and learning is successful.

1.8 DEFINITION OF CONCEPTS

The following terms are used in the study and are defined as follows:

- **Department of Higher Education and Training (DHET),** as used in the proposal, is a department of higher learning whose mandate is to provide a variety of skills development courses to students (Cater, 2017).

- **Online learning**, as used in this proposal, refers to a form of distance education style that uses internet and web-based materials (Sadiku et al., 2018).

- **Information Technology** as used in this study is the usage of computers, storage, networking and other physical devices, infrastructure and processes to create, exchange, store and process all forms of electronic data (Castagna & Bigelow, 2021).

1.9 ORGANISATION OF THE STUDY

This study consists of five (5) chapters.

- Chapter One: Orientation of the Study

This chapter provides the orientation of the study and insight into the introduction, background to the study, the problem, rationale, research questions and objectives as well as the theoretical framework. The significance of the study is also stated followed by the definition of key terms.

- Chapter Two: Literature review

This chapter discusses relevant literature related to the study. It reviews literature on online teaching and learning and lecturers' perspectives on TVET colleges. The chapter also reviews current literature trends on key concepts of the study. The topics discussed in these sections include benefits and challenges, and lecturers' perspectives on online teaching and learning and support.

- Chapter Three: Research methodology

This chapter introduces the methodology of the study. It discusses the research paradigm, research approach, research design, sampling, data collection as well as data analysis. It further elaborates on ethical issues and strategies used to enhance the quality of the study.

- Chapter Four: Presentation of research findings

The findings of the study, analysis and discussion are presented in this chapter and are supported by related literature.

- Chapter Five: Summary of the findings, conclusions and recommendations.

Summary of findings, conclusions and recommendations are presented in this study. The chapter further contains suggestions for future research and a final word from the researcher.

1.10 SUMMARY OF THE CHAPTER

An introduction and orientation to the study was provided. The background to the research problem was investigated. The theoretical framework of the study was clearly stated. The aims of the research study were spelt out and key concepts explained. Different chapters of the thesis were indicated. A brief procedure of the study methodology and significance of the study was presented. The next chapter provides insight into literature relating to the research topic.

CHAPTER TWO
LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter presented the introduction, background and orientation to the study. The researcher further provided the rationale, including aims and objectives, of the study as well as research questions. The theoretical framework that underpins this study is to be discussed in chapter in detail and followed by the significance of the study and outline of chapters. This chapter examines the scholarship and literature review pertaining to the TVET colleges and online teaching and learning.

2.2 TVET COLLEGES IN SOUTH AFRICA

TVET colleges in South Africa are former technical colleges which provide technical and vocation educational support (Department of Education, 2001). 152 former technical colleges were merged into fifty (50) TVET colleges across all provinces of South Africa (Terblanche & Bitzer, 2018). This led to new service delivery in the Department of Higher Education and Training (DHET), which is represented by Technical Vocational Education and Training (TVET) colleges. TVET is described by Subrahmanyam (2020), as a form of education which is technical and vocational in nature; and its aim is to acquire competence and to meet both social and economic needs of individuals on a variety of levels. In addition, VET colleges provide knowledge, attitudes and skills which are effective for employment in specific occupations (Oviawe, Uwameiye & Uddin, 2017). Serumu (2015) acknowledges the fact that TVET colleges provide attitudes, practical skills and knowledge related to employment in different sectors. The intention of the South African government regarding TVET colleges is to improve the social status of its citizens and to build industry workforce (Alexander & Masoabi, 2017). The design of Technical and Vocational education is structured in a way that it is able to equip students for gainful employment; and efforts in many countries are being renewed in order to promote technical and vocational education.

The goal of education in TVET colleges is essentially to produce competent human resources by fighting illiteracy and ignorance and promoting social and economic development (Oviawe et al., 2017). The youth is encouraged to take part in

entrepreneurial positions through TVET education as it has a meaningful impact on economic development and productivity (Alhasan & Tyabo, 2013). However, countries like Nigeria only have few people who have access to vocational education and training due to the increase in the population of that country (Nedum-Ogbede & Enwere, 2018). To this end, Maringe and Osman (2016) argue that universities are not hard skills driven compared to TVET colleges. Lack of readiness to integrate e-learning modalities from TVET lecturers was reported in countries such as Morocco, the Republic of Korea, Canada and India (Chun et al., 2021). Furthermore, lecturers have not been sufficiently trained to design pedagogical resources that can be used remotely (Nyakundi, 2023). Two studies reported that students strongly believed that their professors had little computer knowledge (Elstad & Christophersen, 2017; Hatlevik, Scherer, & Christophersen, 2017). This therefore identify the gap in this study.

2.3 ONLINE TEACHING AND LEARNING

During the last decade, distance education became an alternative to traditional education system for students who want to continue working full-time or raise families (Rahman, 2015). Online learning is a teaching and learning platform such as Zoom, Whatsapp and google classroom that allows lecturers or other online users to send information and for students to receive and interact with the information (Basar et al., 2021). Some scholars define online learning as a method of education that use electronic technologies to enhance and facilitate formal and informal learning (Munyi et al., 2021). This distance education is therefore a flexibility mode of learning, which is advantageous to students who want to study part-time. It has also been used to serve students of different abilities, geographical locations and economic statuses (Coleman et al., 2021). Online teaching and learning classes can be used at different learning levels such as colleges, business schools and grade schools globally. An earlier study by Mayer (2019) reports that approximately 11% of all business-related training courses were offered through the online mode in 2001. Mbanga and Mtembu (2020) argue that resources must be available so that online learning can be used effectively in TVET colleges. A study conducted by Torres and Giddies, (2020) revealed that Lecturers often have limited access to ICT and lack the necessary computer literacy skills to facilitate in the virtual classroom. In Canada, online teaching enabled Red River College in

Manitoba to allocate 80-85% of time in its four-year apprenticeship programs to practical work-based learning, with 15-20% of time allocated for college-based learning (Latchem, 2017). In Botswana, private tertiary institutions enhanced efforts to ensure continuous learning in the TVET sector (Botswana Qualifications Authority, 2020). In the following sub-sections, the researcher discuss the importance of online teaching and learning, TVET Institutions ready to implement online teaching and learning.

2.3.1 The importance of online teaching and learning

Online learning is a tool that makes teaching and learning process more student-centred, more flexible and innovative (Dhawan, 2020). This platform enables advancement in knowledge using internet resources with both the lecturer and students. Technology plays a vital role as it assists in facilitating teaching and learning in an online environment. Online technology is mobile and uses smartphones, tablet devices and laptop/computers as part of the teaching and learning context (Lockyer et al., 2016). Massive Open Online Courses (MOOC) were also becoming popular as an e-learning modality through platforms like Future Learn, edX and Coursera (Valverde-Berrocoso et al., 2020; Tsironis et al., 2016). Lecturers and online facilitators use these digital resources for computer software to facilitate the process. This will therefore assist in ensuring readiness in online teaching and learning.

2.3.2 TVET Institutions ready to implement online teaching and learning

Online teaching and learning quality is critical in students' performance, and lecturers' development will greatly determine the upcoming success and stability of the TVET sector. TVET institutions empower students to manage and create their own experiences by working on improving technological approaches in online teaching and learning (Shakeel, Haolader & Sultana, 2023). Thies (2018) emphasises the need for developing digital strategies that meet challenges through artificial intelligence, while revolutionising the market of employment with TVET colleges. He further suggested that institutions of higher learning should invest in technology. The findings of this study suggest that the government can encourage technical and vocational education institutions to develop online teaching and learning quickly. However, they need adequate training from management, the

Department of Higher Education and Training, and other stakeholders. The use of online teaching and learning requires computers and projectors. Web-based learning (WBL) feature increases in usage. There are two major classes in WBL systems: synchronous and asynchronous. Synchronous WBL economical or logistics reasons will exclude eligible students from the course. Below are factors contributing to colleges becoming ready to implement web-based learning are discussed below.

2.3.3 Factors that determine readiness for web-based learning

Below are four factors that determine readiness

2.3.3.1 Readiness theory in educational concept

Readiness in the use of technology is based on three key metrics of change which are valance, contextual factors and change efficacy. The current study intended to explore these three factors as well as organisational change in seven dimensions: cognitive readiness, innovation valance, information technology readiness, resource readiness, partnership readiness, cultural readiness and strategic readiness. These factors influence the preparedness for web-based learning in institutions (Lokuge et al., 2019).

2.3.3.2 Change valance

Individual support for change critical in effectively implementing change (Mehboob & Othman, 2020). Change requires commitment and the ability to implement the needful adjustment. There is a need for commitment and to support administration of digital education positively so that it is successful, and commitment to change is facilitated by the readiness of change implementers. Lecturers' readiness is also crucial to enhance commitment to online teaching and learning (Yeap et al., 2021). Although commitment is highlighted as important for change to take place, there are external factors and individual characteristics which may also have an influence on the change process.

2. 3.3.3 Contextual factors

There are contextual factors that have the potential to influence the readiness of an organisation to implement change and the underlying policies. For instance, the culture of the institution such as norms, teaching and learning strategies as well as

relationships within the organisation determine the context in which change is implemented (Panigrahi et al., 2018). In this study, I explain how one selected TVET College plans to embrace and promote change in norms and culture based on seven (7) dimensions of organisational change in order to adapt to the fourth industrial revolution of online teaching and learning.

2.3.3.4 Change efficiency

Change efficacy relates to the resources in the organisation and knowledge and skills of the human resources that are needed to implement change policies (Lokuge et al., 2019). Human resource needs to be well-skilled and knowledgeable of change objectives as well as the strategies to be implemented to realise the objectives. Other resources like time, capital and ability to be innovative, amongst others are essential for change to be successful. Harun and Mansor (2019) further argue that while private colleges concentrate on enabling expertise and building the capacity for business needs, the interest in public colleges is doing research to ensure the national development of scientists. Below are dimensions that will ensure readiness.

Seven dimensions of organisational change

There are seven dimensions of organisational change that determine readiness in technology. The dimensions are discussed in the following bullets.

- Cognitive readiness

Cognitive readiness can be described as the foreseeable knowledge ability of employees to use technological devices and innovations (Torlak et al., 2021). It is the ability of an individual to sort out the complexities of digitalisation (Lokuge et al., 2019). Cognitive readiness is mainly concerned with the ability to adapt to and use digital innovation in teaching and learning.

- Innovation valance

Innovation valance is a degree in which an employee positively adapts information technology (Kilani, 2021). This means that leadership should be empowered, and staff encouraged to use technology in their innovation (Lokuge et al., 2019). The more lecturers are flexible and accept change, the better the positive results in performance. The success of a change process needs positive and flexible

participation of lecturers who are rewarded for the implementation of change (Hosseinpour et al., 2019). In addition, lecturers need to plan sufficiently on how they deliver their lessons online. Literally, Karuppannan et al. (2020) show that when lecturers are engaged and confident in what they are doing, they need to be recognised by including their views and opinions in policies and the change implementation process. Schot et al., (2018), however, argues that previous failures in innovation and technology are due to lack of domestic demand for information technology readiness. Information technology systems are based on internet sources, webpages and other digital media platforms (Celik & Yildiz, 2017). Additionally, information technology services are expected to be consistent and innovative in providing information (Kleis et al., 2012). Furthermore, in the concept of education, information technology readiness is often used where lecturers and students adapt to technology in digital learning. This readiness has important influential factors such as the provision of strong internet connection, materials to be used and accessibility of offline sessions. The lack of proper internet connectivity may have a negative impact on readiness for online teaching and learning, whereas adequate internet provision increases the adaptation to the use of technology (Parasuraman & Colby, 2015). From this literature review, information technology is crucial if institutions want to change and adapt to the fourth industrial revolution.

- Resource readiness

Resources are the primary tools that institutions use to create goods and services (Torlak et al., 2019). Resources in educational terms and in colleges include infrastructure that enables teaching and learning to take place through online platforms (Saekow & Samson, 2011). For the college to ensure readiness to online teaching and learning, it must ensure that computers, laptops, projectors, Wi-fi connectivity are readily available for use by lecturers and some students who can connect at the college. Hylén (2015) asserts that resources are materials used by lecturers and students for teaching and learning. The literature in this section implies that if sufficient resources such as computers and projectors are provided, lecturers at the college and students may greatly have a positive outlook on online teaching and learning.

- Partnership readiness

Partnership readiness speaks to the external environment on which the institution and its stakeholders depend, such as suppliers, clients and consultants (Haney et al., 2002). In the United States, the state's definition of readiness refers to knowledge and skills that both lecturers and students should have to ensure readiness in online learning (Mishkind, 2014). Such partnership is based on enabling institutional culture that promotes creativity in the transition to changes in institutions (Sedera & Dey, 2013). Stakeholder readiness in education means that lecturers, students, parents and others concerned within teaching and learning at different levels should adapt to the required changes. A study done by Andrews & others (2012) on partnership readiness in education reported that a positive relationship and trust strengthen relationships and work positively towards change.
Cultural readiness

Cultural readiness is the capacity of organisations to adapt to desired change process (Lee et al., 2016). This readiness determines an institution's online teaching and learning preparedness by including its parameters, perception and adaptation towards the successful implementation of online teaching and learning (Saekow & Samson, 2011). Cultural readiness is an important factor as it influences innovation and change process (Lokuge & Sedera, 2020). Malik and Garg (2017) state that cultural readiness is when employees in an organisation are flexible for change and are more committed to innovation in orient cultures that come with the change process. Cultural change includes communication strategies, good leadership, goal setting and well-coordinated plans for change implementation (Benzer et al., 2017). Cultural factors of an organisation such as decentralised decision-making, knowledge-sharing and risk sensibility positively relate to innovation and change (Benitez et al., 2018).

- Strategic readiness

Strategic readiness can be described as activities done my managers in an organisation which engage and facilitate digital innovation (Lokuge et al., 2019). This strategic readiness aligns both tangible and intangible resources in organisations and how they make use of existing resources and develop new resources (James, 2018). These strategic activities include effective

communication, the problem-solving ability of managers and clear vision set and shared by all stakeholders in line with the change process (Lustria et al., 2013).

2.4 BENEFITS OF ONLINE TEACHING AND LEARNI

One of the important benefits of virtual teaching and learning is that it reduces costs in terms of traveling to the institution (Philipsen et al., 2019). Paudel (2021) states that virtual teaching and learning is inclusive and convenient. Using technology further enables students who are unable to attend to the traditional method to attend online at the convenience of their homes (Means et al., 2013). This therefore enables the instructor to organise communication such as chats, discussions and web conferencing using an online platform (Graham, 2019). Technology allows lecturers to monitor students' progress in terms of the amount of time spent on the virtual learning platform and participation in online discussion platforms (West, 2012).

The college president, however, states that virtual teaching and learning and face to face classes provide equal value of education (Parker et al., 2011). However, due to insufficient experience, online instructors have struggled to change completely to virtual teaching and learning classes (Cruickshank, 2020).

2.5 CHALLENGES REGARDING ONLINE TEACHING AND LEARNING

Frequently reported challenges include insufficient support, insufficient infrastructure, increase in workload as well as the time needed for the preparation of online structures (Eberle & Hobrecht, 2021; Mishra et al., 2020). Other challenges include being sceptical to adapt. Control of assessments can also pose a challenge (Flores et al., 2022). Even though teachers in Pakstan's case performed at their best, they were not able to offer integrative activities to students. This posed a challenge, resulting in the review of teachers' professional development in online teaching and learning (Waqar, 2020). Inadequate internet connectivity and digital self-efficacy were found to be a challenge in Pakistan (Kanwal & Rehman, 2017). More-over, inadequate communication between a student and a teacher, and inadequate ICT competence were found also be a challenge in Saudi Arabia (Aljaber, 2018). This shows that there are some barriers which still exist and hinder the success of virtual learning. Further challenges are discussed below:

2.5.1 Challenges of connectivity

The most significant factor discovered by Najib, Bakar and Othman (2016) are the impact that internet connection has towards a successful networked learning, which significantly relies on network connectivity. So, if a network is poor, it creates challenges in successfully transmitting information and ensuring that students receive it (Simamora, 2020). The costs of internet use as well as availability determines whether online teaching and learning continues. Access to the internet can be a limiting factor due to limited internet access and geographical location. Through the internet, the world of virtual and digital converges so as to create an environment that is more intelligent (Patel et al., 2016). This caused challenges as most lecturers are struggling to teach online; they do not have the tools to remain connected to students. Lecturers are unable to create content online and deliver it to students. Also, some studies indicate that most students do not show interest when being taught online (Hassan, 2020).

2.5.2 Lack of Resources and Technology

Countries like India have inadequate digital infrastructure to conduct online teaching and learning (Hassan, 2020). Akçayır and Akçayır (2018) also emphasised the maintenance and costs of online technologies and resources. The complexity and level of robustness also posed a challenge in technological innovation that is suitable for both lecturers and students. Software such as video features have limited functionality and often turn to slow down interaction (Gillett-Swan, 2017). Hondonga et al., (2021) investigated challenges of online teaching of TVET courses in Botswana, the study gathered data from lecturers and students. The findings indicated that most TVET colleges did not have online learning platforms, on the one hand. The lecturers were reported as lacking adequate preparation to use the online platforms for teaching. Undeniably, digital learning requires extra effort from the faculty to ensure the learning process to be smooth (Cutri & Mena, 2020; Junus et al., 2021). However, the lack of attention on technology development by faculty renders the lecturer to be unprepared to embrace digital learning (Farazkish & Montazer, 2019).

2.5.3 Lack of Training

Illiteracy from both students and lecturers in using technology is also a challenge in successfully implementing online teaching and learning (Rasheed et al., 2020). Therefore, in order to successfully implement online teaching and learning, lecturers need adequate training so that they have the necessary skills to deliver (Medina, 2018). Students also need to be trained on the utilisation of online system. Training on the use of technology must be adequate in giving both students and lecturers sufficient time to master the online system.

2.6 SERVICE PROVIDERS (LECTURERS) PERSPECTIVES

Lecturers' qualifications and skills relevant to the TVET sector are discussed.

2.6.1 Lecturers' qualifications and skills set

The overall performance of the lecturer relates to the manner in which instruction is given in the classroom (Fah & Osman, 2011). Internationally, TVET lecturers have to provide career advice, manage administrative functions, engage with service providers, translate training programmes as well as assess training outcomes (Smith & Grace, 2011). TVET lecturers must have two qualifications, namely: a vocational trade and a professional teaching qualification (Schmidt, 2019).

The qualification policy in South African TVET colleges states that lecturers must be qualified, have sound knowledge of the subject and familiarise themselves with the workplace demands of both industries and businesses (Wedekind & Watson (2016). TVET lecturers are furthermore required to have expertise in pedagogy and knowledge of the subject accompanied with experience and workplace qualifications. However, some lecturers in technical fields have little pedagogical training as they are mostly recruited from industries, hence work integrated learning was introduced for such lecturers and contains practical skills (Mesuwini et al., 2023). Lecturers are required to have vocational teaching qualifications speciality in conjunction with occupational qualifications, industry experience and their trade as well. They further need to upgrade their qualifications by undertaking relevant studies (Wedekind, 2016). In South African TVET colleges, only few lecturers have sufficient academic workplace and teaching qualifications (Van der Bijl & Oosthuizen, 2019).

In a study conducted in Northwest province, five percent of lecturers had certificates as their highest qualification. A total of 47% of lecturers had a diploma, while 36% of the lecturers that participated in the study had a degree, remaining 12% had non-teaching qualifications (Manyau, 2015). Harrel et al., (2019) states that the faculty member's previous experience encounter with with online teaching and learning as well as support affects lecturers' perspectives on online teaching and learning. The performance of lecturers is evaluated on their ability to develop and enhance the intellectual capacity of students' development and their level in carrying out tasks (Fayolle & Redford, 2014). Furthermore, their capacity to respond to different programmes and achievements measures their level of professionalism (Rahmah & Fadhli, 2021). Therefore, lecturers' professionalism is essential; their sacrifices and quality of education contribute to the overall success of students and objectives of institutions (Prasetyo et.al., 2022). Chan et al. (2021) also concur that lecturers work together to create a conducive learning environment and to ensure that online teaching and learning is successful.

2.7 SUPPORT FOR ONLINE TEACHING AND LEARNING

Hill and Hannafin (2001) identified four support functionalities: (i) conceptual support so that students are able to put information in a prioritised order; (ii) metacognitive support to assist learners in measuring their learning; (iii) procedural support for resource purposes; and (iv) strategic support to provide extra support so that tasks can be completed. These types of support can come in the form of tools (e.g., organisers and search functions), additional cues (e.g., questions for learners to reflect and suggestions to use certain resources), feedback (e.g., evaluation of learning) or guidance (e.g., intelligent tutoring system) during learning (Zheng, 2016). This is elaborated below.

2.7.1 Lecturers' support

Without proper guidelines, it is difficult for lecturers to conduct online teaching and learning as they find it challenging (Ahluwalia et al., 2023). Most lecturers lack experience on how to lecture online (Read, 2020). Leaders in academia report that it takes effort and time-consuming to teach online courses (Allen & Seaman, 2015).

2.7.2 Student support

One of the key elements in ensuring that students achieve their goals and objectives in an online environment is encompassed by student support. This support includes introduction, counselling and guidance to online teaching and learning (Betz et al., 2005). Support strategies turn to increase students' experiences on how they learn. In order to determine the effectiveness of online teaching and learning, student support should be the primary component (Küçük et al., 2010).

2.7.3 Instructional support

Student guidance includes giving instructions which are unambiguous, rectifying students' misunderstandings, giving constructive feedback on assessments and responding to students' questions. It also includes encouraging and motivating students to achieve their objectives (Lee et al., 2011). Instructional designers and faculties need to come up with ways to support students.

2.7.4 Technical support

This kind of support enables both students and lecturers to be provided with any technical assistance that they may require. A report by Song et al. (2004), however, indicated that the primary component creates challenges in determining online environments. Therefore, it is crucial that teachers/lecturers and online instructors assist in ensuring that students are comfortable and that they can be assisted with any technical issues that may be experienced (Muilenburg & Berge, 2005; Song, et al., 2004).

2.8 CONTEXT OF THE STUDY

This chapter provided the introduction to study. The research problem was outlined. The scope and research aim of the study were explained. The definition of key concepts was done. Various chapters of the thesis were indicated and as well as the research methodology, which describes the method used in the study. From the discussion of this chapter, it is obvious that lecturers' perspectives towards web-based learning differ, even though most lecturers who participated in the study had positive perspectives on online teaching and learning.

2.9 SUMMARY OF THE CHAPTER

Various aspects of the literature on TVET colleges, including benefits, advantages and disadvantages of online teaching and learning lecturers' perspectives as well on online activities were discussed. The formation and intention of TVET colleges are included in the discussion. The next chapter presents the research methodology and includes introduction of the study, research paradigm, research approach, research design, research methodology. Ethical issues and the strategies used in ensuring quality of study are also presented, and lastly, the researcher presented a summary of the chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. INTRODUCTION

The previous chapter discussed benefits and challenges of online teaching and learning, lecturers' perspectives as well as the support for online teaching and learning. This chapter describes the methodology used in the study, which includes a discussion of the research paradigm, research approach and design. The population, sampling, data collection methods and data analysis procedures are presented. Ethical considerations as well as the trustworthiness of the study are also examined. The section below describes the research paradigm of the study.

3.2. RESEARCH PARADIGM

A research paradigm explains the belief, thinking mindset and the research assumptions that guide the meaning-making of the data generated in the study. A research paradigm can also be described as a conceptual lens through which the researcher unpacks the study (Kivunja & Kuyini, 2017). A constructivist paradigm was adopted in this study. Merriam and Tisdell (2015) state that in terms of the constructivist paradigm, the researcher is required to create meaning of the research data in collaboration with the participants. This paradigm enabled the researcher to create meaning of participant's responses to the research questions, and therefore it justified the reason for the researcher using this paradigm. The theory behind constructivism is that the experiences of people enable them to build knowledge and meaning. Constructivists believe that students' beliefs and attitudes affect the context in which the idea is taught in learning (Bada & Olusegun, 2015). The constructivist paradigm is important in this study because it enable individuals to apply their minds.In this paradigm, the researcher explored the realities of the experiences of TVET college lecturers regarding what they know about online learning, their experiences, and their current perspectives to be able to interpret and construct knowledge on e-learning.

3.3 RESEARCH APPROACH

The research approach adopted was qualitative, which is deemed relevant to this study because the researcher sought to establish the meaning of a phenomenon from the participants' views. The qualitative approach enables the researcher to explore experiences of participants regarding online teaching and learning. Denzin and Lincoln (2011) assert that qualitative research focuses on the use of many data collection methods which are then triangulated to understand the phenomenon in depth. The qualitative approach also allows the researcher to have an opportunity to ask open-ended questions to obtain rich data (Tasker & Cisneroz, 2019). The strength of the qualitative approach is that the researcher is able to probe for underlying beliefs, values and assumptions in an interview conversation (Yauch & Steudel, 2003). The researcher chose to use the qualitative approach because using open-ended questions enabled the researcher to make use of follow-up questions while participants also shared with the researcher what they regarded as important in answering the questions. Although there are many advantages of using the qualitative approach, there are also some disadvantages. Heritage and Silverman (2010) state that the disadvantage of the qualitative research approach is that it focuses on meaning-making and experiences such that it excludes contextual sensitivities. In this case, the researcher was sensitive to the behaviour in which participants found themselves during interviews. Another disadvantage is that the interview conversation and transcribing the recorded data may be time-consuming (Hagens et al., 2009). In this study, the qualitative data gathering method used were interviews. The supervisor provided guidance in using interviews to collect data from participants.

3.4 RESEARCH DESIGN

A research design provides structure to address research problems and research questions and ensures that results are credible and not bias (Dannels, 2018). Based on the topic of this study, the researcher wanted to establish perspectives of lecturers at one selected college in Johannesburg about their readiness to implement online teaching and learning as well as to ensure that the research questions and objectives of the study are achieved. This plan of a research design is adopted by the researcher before commencing with the collection of data (Asenahabi, 2019). In this study, a case study research design was used. A case

study design involves a systematic investigation of different sets of groups and units (Heale & Twycross, 2018). Harrison et al. (2017) state that a case study research design is often used in different disciplines such as social sciences, law, health and education to address a range of research questions. In qualitative research, a case study can be useful in asking and getting information about the real-life phenomenon (Tetnowski, 2015). This type of design enables the researcher to generate rich data through in-depth investigation in a real-life context (Miles et al., 2014).

Case study research was relevant to this study because it investigated perspectives and experiences of lecturers at TVET colleges regarding online teaching and learning. The researcher chose this type of research because it enabled her to investigate perspectives of lecturers on different sets of groups in their departments about the topic of study. An advantage of using a case study design is that the researcher was able to interact with the participants in asking questions about real-life experiences. A case study is also a flexible design that gives the researcher an opportunity to use multiple data collection methods (Ebneyamini & Moghadam, 2018). The other advantage is that a case study can be applied in many fields such as science, psychology, social work, anthropology and sociology (Gog, 2015).

3.5 RESEARCH METHODOLOGY

In this section, the researcher presented details of the research method procedures, which included research site, population and sampling, research method, research procedures and data analysis of study

3.5.1 Research site

The study was conducted at one selected i TVET College in Gauteng Province, Johannesburg area. The researcher chose this college because it is convenient in terms of distance from where the researcher resides. What is unique about this study is that it gives the reader a full insight of the perspectives of lecturers in a TVET college towards online teaching and learning using interviews.

3.5.2 Population and Sampling

A population is a whole group of people that you want to draw conclusions from based on the study findings (Satishprakash, 2020). Sample of this study is a total of 150 employees, and 120 of them are lecturing staff of a TVET college. The

remaining 30 are other staff members. The number of students is approximately two thousand (2, 000). There are three departments which comprise Engineering, Business and Fundamental Departments. The sample of the study was drawn from the population of 120 lecturers. Participants of this study are lecturing staff at a selected TVET College. Purposive sampling was used to select participants from a population of 120 lecturers from different departments in TVET college comprises Engineering, Business and Fundamental Departments. Semi-structured interviews were used to gather data, which was analysed using the thematic analysis procedure.

A sample is a small group of individuals from whom data is collected (Sharma, 2017). In this study, the sample was drawn from 120 lecturing staff of the selected TVET College. The researcher used purposive sampling as a method to identify participants. Olafsen and others (2021) state that in doing purposive sampling, the participants are selected based on specific criteria used by the researcher. Purposive sampling focuses on the participants that have experienced or are well informed about the phenomenon under study (Etikan et al., 2016). The participants were relevant to the study and had the potential to yield rich data. The study selected ten (10) lecturing staff. The selection criteria included knowledge and experience in online teaching and learning. The participants included lecturers who lectured in computer-related subjects and those who lectured in non-computer-related subjects as they also used online facilities. The researcher identified lecturers by asking them questions prior to the interview so that they are able to be categorised. Questions such as: is the lecturer lecturing computer related subjects or not? The age of participants were also asked during the interview. The reason for these selection criteria was to provide an opportunity to lecturers in different departments to give their perspectives on online teaching and learning and to relate them to the subjects that they lectured. The study involved lecturers between the ages of 25 to 45. The reason why the researcher selected this age group was to fulfil the purpose of the study which is to explore perspectives of lecturers at a TVET College in Johannesburg regarding their readiness to implement online teaching and learning.

3.5.3 Data gathering process

Interviews were used to generate data from the TVET college lecturers. The research site was one selected TVET college in Johannesburg. An interview is a communication between the researcher and the participants in which the former seeks to get the views and opinions of participants on the research question as predetermined by the researcher (Adhabi & Anozie, 2017). Interviews can be either formal or informal; formal interviews are more structured, held to higher standards and are used more prominently in the professional world, whereas informal interviews are part of daily living as people experience it. Researchers can choose the types of interviews for their research: structured, semi-structured or unstructured (Stofer, 2019). In this study, semi-structured face-to-face interviews were used to gather data. This type of interviews is commonly used to collect data in a qualitative research (Kallio et al., 2016). In the interview process, there was an introductory session in which the researcher orientated the participants and provided the purpose of the study and ethical issues. This was followed by the researcher, who used pre-determined interview questions to guide the conversation. The participants were allowed to elaborate on their responses, and the researcher asked follow-up questions for more clarity and depth. On average, each interview took about twenty minutes (20) to be completed.

One of the benefits of doing interviews is that the researcher can probe the responses received from participants to get more clarity and more information on the questions asked (Coiro et al., 2014). Another advantage is that participants are given the flexibility of giving more information beyond the question asked in the process of explaining the issue. The disadvantage of face-to-face interviews is that the researcher has to travel to the interview site which could be costly. It may also take time to get to the venue or the venue may be noisy, interfering with the interview conversation (Doyle, 2004). To overcome this limitation, the researcher gave herself enough time to get to the venue, and enough resources are required in terms of transport to get to the participants. The researcher requested participants to find a suitable venue for the interview with minimum interruptions which is safe and convenient.

3.5.4 Research procedures

A set date, time and venue were given to participants so that they can also prepare in advance for the interview. On the day of the interview, an overview of the research topic and purpose was defined to participants. The topics of the interview were based on the research questions as well as the objectives of the study. The researcher facilitated the entire process of the interview. For the purpose of analysis, reporting and transcribing, the interview was audio-recorded. The purpose of recording is to ensure quality and consistency of data recorded (Berazneva, 2014). For authenticity and verification purpose, transcripts of the interviews were sent to participants first to go through, and to acknowledge, them.

3.5.5 Data analysis

Data analysis covers a spectrum from confirmation to the exploration of textual, audio or visual data (Mihas, 2019). The process of data analysis and interpretation can follow inductive or deductive logic (Best & Khan, 2009). The inductive process includes reducing the volume of raw data by cleaning the data. This is followed by coding, forming themes and identifying patterns in response to questions (Kyngäs, 2020). In this study, the researcher intended to follow the inductive logic as she followed the thematic analysis procedure to analyse the interview data. Thematic analysis is a method which is used to identify and organise data according to the data set so that it provides meaningful information or data (Braun & Clarke, 2012). It further searches for ideas which are recurring in a qualitative study (Riger, et al., 2016). The researcher started the analysis process by thoroughly reading through the transcripts followed by segmenting data and coding. The researcher read through the codes and merged them to form categories, which she further grouped together to form themes and sub-themes.

3.6 ETHICAL ISSUES

Ethics should always be at the forefront of the researcher's agenda (Creswell, 2014). The first ethical issue was to obtain permission to conduct the study Once completed, the researcher was granted a written permission from UNISA Research Ethics Committee. The researcher then sought permission from the college to access the TVET College as the research site.

The following principles by Pietilä et al., (2020) were also applied in the study: autonomy, beneficence and justice, informed consent, confidentiality and anonymity as well as free participation as they serve as the basic ethical guidelines for this qualitative research:

Autonomy: Autonomy is the protection of human rights in research. Participants were informed of the study and gave their consent. Their rights and dignity were also protected.

Beneficence: Beneficence means doing good for others and preventing harm. The researcher ensured that no harm was done to participants and that any risks were diminished by taking appropriate measures.

Justice: The principle of justice refers to equal share and fairness. Equitable benefits were given to all, as well as fairness to all participants. The participants were not exploited or ill-treated in any way during the study.

Informed consent: The participants completed a consent form to partake in the interview, which was done on a voluntary basis. Those who chose not to participate in the study were exempted without any penalty.

Privacy: Information from participants has been kept in a safe cabinet.

Confidentiality and anonymity: The researcher asked the participants to sign the confidentiality agreement form. Their information, including names was kept confidential.

Free participation: Participants were advised by the researcher that they should feel free to participate in the study and that they were not in any way obliged or coerced. They were informed about this so that they are aware of their rights in taking part in the study.

All data gathered for this study is stored safely in a safe and secure cabinet where there is electronic backup. Access to the data was only restricted to the researcher and the supervisor. For the purpose of understanding the phenomenon, most research data undertaken are from an identified sample. Prior to commencing with the study, the researcher applied and received an ethical clearance certificate from the University of South Africa. After the certificate was granted, then informed consent to participants was obtained. The reasons as well as the purpose of the

study was provided to participants, and an opportunity for them to indicate whether to participate in the study or not was also given. The protection of anonymity of the subjects identified was also taken into consideration and therefore structured in a sense that their identity is not revealed. The researcher also made sure that no third party had access to participants' responses and that confidentiality was maintained. The rights of privacy of participants were also protected. The right to freedom of choice and expression by participants was also honoured. Lastly, the time mutually agreed by both participants and the researcher was also honoured.

3.7 ENHANCING QUALITY OF THE RESEARCH

Trustworthiness is an effort that the researcher puts to ensure that the findings of a qualitative study are of good quality (Connelly, 2016). Trustworthiness is about authenticity of findings (Kyngäs et al., 2020). In this study, trustworthiness was ensured by following the principles below by (Shenton, 2004).

3.7.1 *Dependability*

Dependability is the degree to which the researcher has been unbiased and the extent to which the study findings are unbiased (Soroush et al., 2018). The process of the interview was discussed in detail, including the operational detail of data gathering, addressing everything that was done in the field. To ensure dependability, the researcher described all stages of the research step by step and did not change the interpretation of data from participants. Participants' views were recorded accurately by using a recording device during interviews.

3.7.2 *Credibility*

Credibility is confidence in the study (Haven & Grootel, 2019). To ensure credibility, the researcher assessed the quality and integrity of data and ensured that it was credible by enabling peer review in research findings and getting critical comments from supervisor. The researcher also engaged her supervisor as frequent as possible for debriefing sessions. Although only one data collection was used, the researcher triangulated the findings from different participants to ensure credibility. The researcher also had debriefing sessions with participants after data collection to reassure them of confidentiality and to give them an opportunity to ask questions. The researcher also welcomed an opportunity for scrutiny of her research by peers,

colleagues, academics, and welcomed feedback from them. Member checks which included verification of theories were also taken into consideration. All participants responses were member checked. The reason that the researcher used member checking was to ensure that participants responses to the interview questions were not misinterpreted. Member checking was completed after the researcher had finished transcribing participants responses. An examination of previous research findings was done to ensure that results were congruent with the current study.

3.7.3 *Transferability:*

Transferability implies that findings in the research study will be the same as findings in the same situations (Ghafouri & Ofoghi, 2016). The researcher wrote a research report that presented the findings of the study and the setting in which the study took place. Such information was used by the reader to determine the transferability of findings of the study to other contexts.

3.7.4 *Confirmability:*

This is the extent to which the research findings can be established (Ghafouri & Ofoghi, 2016). It is further explained as the length to which other researchers can confirm the results of the enquiry (Baxter & Eyles, 1997). Confirmability was done by checking potential congruence between participants with regards to data accuracy, relevance and meaning. Study confirms that findings were based on data from the research methods. The researcher reduced the effect of bias by emphasising the role of triangulation. Audit trail was conducted and enabled a step-by-step trace of the research study.

3.8 SUMMARY OF THE CHAPTER

In this chapter, the researcher discussed the research methodology, including the research paradigm, approach, design and data gathering method. An explanation of population, sampling, data gathering methods and data analysis procedure is presented. The chapter also included issues of ethical principles and trustworthiness of the study. The next chapter presents and discusses the research findings.

CHAPTER FOUR
DATA PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

In the previous chapter, the researcher discussed the research methodology, which includes the research paradigm, research approach, research design and data collection method. An explanation of population, sampling, data collection methods and data analysis procedure were presented. The chapter also included issues of ethical principles and trustworthiness of the study. The next chapter presents the research findings. Below is the biographical information of ten (10) lecturing staff that were interviewed in the study. Research questions as well as the interview questions were tabulated. Furthermore, the researcher categorised the findings from the interview questions in themes and sub-themes and elaborated on the presentation of the findings with quotations from the lecturing staff that participated in the study.

4.2 BIOGRAPHICAL INFORMATION OF PARTICIPANTS

Table 4.1: **Biographical information of participants**

Code name	Gender	Age group (years)	Highest qualification	Lecturing experience in this College	Subjects Lecturing
Lecturer A	Female	50-55	ACE (Advance Certificate in Education)	9	Mathematics, Maths Literacy
Lecturer B	Male	50-55	Degree (Business Administration)	11	Business practice, Office practice
Lecturer C	Female	40-45	Honours (Economics)	11	Transport operation, Transport economics

Lecturer D	Male	40-45	B.Ed	11	Mathematics, Science
Lecturer E	Male	50-55	B.Ed	13	Tourism management
Lecturer F	Female	25-30	Bcom (Business Management)	4	Transport operation, transport economics
Lecturer G	Female	35-40	P.G.C.E	2	Introduction to system development, system analysis
Lecturer H	Female	25-30	B.Ed	1	English
Lecturer I	Male	30-35	P.G.C.E	7	Engineering & graphic design
Lecturer J	Male	40-45	P.G.C.E	8	Life orientation, computer

4.3 RESEARCH QUESTIONS AND INTERVIEW QUESTIONS

Table 4.2: Research questions and interview questions

1. What are the perspectives of lecturers at a selected TVET College regarding their readiness to implement online teaching and learning?	• What is your view about the use of technology in teaching and learning? • What can you say about your readiness to use online teaching and learning in this college? • How can you describe your readiness in implementing online teaching and learning?

2. What challenges do lecturers at a selectedTVET college experience regarding online teaching and learning?	• What are some of the challenges that college lecturers experience that may cause delay in implementing online learning? • From your experience, what are the factors that hinder the use of online teaching and learning? • What is the influence of online teaching and learning in your subject?
3. How do the lecturers at a selected TVET College address the challenges they experience in online teaching and learning?	• Please tell me, how do you deal with the challenges that you have mentioned? • If you had to recommend solutions that will ensure readiness to implement online learning in this college, what would they be?
4. What support can be provided to lecturers at a selected TVET College to successfully implement online teaching and learning?	• What kind of support can be provided to lecturers at a selected TVET College to successfully implement online teaching and learning?

4.4 RESEARCH QUESTIONS, THEMES AND SUB-THEMES

Table 4.3 Research questions, themes and sub-themes

1. What are the perspectives of lecturers at a selected TVET College regarding their readiness to implement online teaching and learning?	**Theme1: Perspectives of lecturers at** a selected **TVET college regarding their readiness to implement online teaching and learning.** **Sub-theme 1: Perceptions on the use of technology for teaching and learning** Category 1: Pro-active perceptions on the use of technology for teaching and learning Category 2: Reluctance to use technology in teaching and learning Category 3: Reasons for proactive perceptions in the use of technology in teaching and learning Category 4: Reasons for reluctance to use of technology for online teaching and learning **Sub-theme 2: The state of readiness of online teaching and learning** Category 1: Narrative of personal readiness for online teaching and learning

	Category 2. Reasons for proactive perceptions Category 3: Institutional readiness for online teaching and learning
2. What challenges do lecturers at a selected TVET college experience regarding online teaching and learning?	**Theme 2: Challenges and factors hindering implementation of online teaching and learning.** **Sub-theme 1: Challenges and factors hindering implementation of online teaching and learning.** Category 1: Lack of resources for online teaching and learning Category 2: Internet connectivity Category 3: Lack of training Category 4: Lack of skills **Sub-theme 2: The influence of online teaching and learning** Category 1: Pro-active influence of online teaching and learning. Category 2: Reason for pro-active influence of online teaching and learning.

	Category 3: Reluctance in using online teaching and learning methods Category 4: Reason for being reluctant to use online teaching and learning.
3. How do the lecturers at a selected TVET College address the challenges they experience in online teaching and learning?	**Theme 3: Addressing the challenges experienced by lecturers at** a selected **TVET college regarding online teaching and learning** **Sub-theme 1: How lecturers deal with the challenges that they experience regarding online teaching and learning** Categorie1: Proactive solutions to challenges of online teaching and learning Category 2: Reasons for not using online teaching and learning methods. Category 3: Reasons for proactive and being reluctant to use online teaching and learning **Sub-theme 2: Recommendations that could ensure readiness to implement online learning in the college** Category 1: Recommendation for availability of data

	Category 2: Recommendation for laptops and smart cell phones Category 3: Recommendation for skills development for lecturers and learners to be able to use electronic media at home Category 4: Recommendation for recording lectures for the students
4. What support can be provided to lecturers at a selected TVET College to successfully implement online teaching and learning?	**Theme 4: The support that can be provided to lecturers at** a selected **TVET college to successfully implement online teaching and learning** **Sub-theme 1: Material support** • Category Laptops/computers/smart phone **Sub-theme 2: Skills development support** • Category Training **Sub-theme 3: Financial support**

4.5 DATA PRESENTATION

In this section, the researcher presents data gathered from the participants for analysis. Data presentation is categorised according to themes that correspond to the research question and sub-themes generated from the interview questions. The responses generated the data needed to answer the research questions from the ten (10) lecturing staff who participated in the study.

4.5.1 Theme 1: Perspectives of lecturers at a selected TVET College regarding their readiness to implement online teaching and learning.

This theme answers the research question - What are the perspectives of lecturers at a selected TVET College regarding their readiness to implement online teaching and learning? The theme aimed at exploring the different perceptions and views of lecturers at a selected TVET College regarding the implementation of online teaching and learning. The theme has four (4) sub-themes which were generated from the interview questions that are linked to the first research question.

4.5.1.1 Finding 1: Perceptions of the lecturers on the use of technology in teaching and learning

The findings discussed under this sub-theme answer the interview question - What is your view of the use of technology in teaching and learning? Four categories were identified in this sub-theme. The responses from participants showed that there were lecturers that were pro-active regarding the use of technology in teaching and learning while there were others who were reluctant to embrace technology. The sub-theme also presents reasons for accepting and being reluctant to use technology in teaching and learning.

Category 1: Pro-active perceptions on the use of technology in teaching and learning

Lecturers expressed interest in the use of technology in teaching and learning. The following is what some of them said:

> *I think online technology is a must nowadays, something we have to make ourselves knowledgeable about it because it is clear that in future it will be something that we will not avoid (Lecturer B).*
>
> *For me it's a good initiative in a sense that it allows us an opportunity where we are able to interact more effectively with students (Lecturer C).*

Lecturers with positive attitudes in the use of technology in teaching and learning may be more willing to implement it than those who do not believe in technology. These findings imply that, given the necessary resource and training, many lecturers may implement online technology in teaching and learning.

I think most of the teaching and learning in most of the teaching institutions will be online, so it is very much important that most lectures and students must now try now to acclimatise themselves with online teaching (Lecture B).

This finding affirms the willingness of some lecturers to use technology in teaching and learning as stated by lecture B above.

Category 2: Reluctance to use technology in teaching and learning

The above finding revealed that most of the lecturers at the college have a positive attitude in the use of technology in teaching and learning, although there are a few who are still sceptical about it. In this sub-theme, only one participant (lecturer) showed reluctance to implement online teaching and learning.

For my subject specifically, I feel that it doesn't work because there is a lot of explaining to do (Lecturer A).

This finding revealed that there are some lecturers at the college who are reluctant to use technology due to the nature of the subject they are teaching. This suggests a gap in technology that meets the needs of teaching and learning in different subjects. In such cases, the needs of the lecturer and the students should be taken into consideration and appropriate technology be devised to meet such needs.

Category 3: Reasons for proactive perceptions in the use of technology in teaching and learning

Participants expressed their different views regarding their motivation and reasons to implement online teaching and learning. Below is what some of them said:

What I found is that when you teach online, they (students) are freer to view their thinking and you are able to get the true nature of your students but when you are face to face, they turn to be very quiet, they don't respond to questions, they don't interact (Lecture C).

I am able to record my lessons which I can use for my other classes, so it gives consistency (Lecturer D).

…because most of our students are born around the year 2000 so they spend most of their time on their phones and laptops, so I think it is a right platform for us to introduce our content digitally (Lecturer F).

The findings of this sub-theme reveal that lecturers expressed their reasons and benefits of online teaching and learning. This means that the online method is not just the right approach to use, but it has benefits that relieve the teaching workload and provide consistency in lesson delivery for more than one class. It also seems that some students feel less threatened when learning at a distance, which gives them courage to interact during the lesson. The lecturers also seemed to acknowledge the influence of digital communication among the youth and take advantage to reach students through the digital platform for teaching and learning purposes.

Category 4: Reasons for reluctance in the use of technology in online teaching and learning

From the data collected, one participant expressed the reasons for not wanting to use technology in digital learning:

For my subject specifically, I feel that it doesn't work because there is a lot of explaining to do, so student don't really understand, I honestly need a face-to-face teaching kind of a thing (Lecturer A).

From the above quotation, the reluctance to use technology can be due to the fact that some lecturers prefer to engage with students face to face, this could be that they may believe or think that if they see them in person, they are then able to tell how they respond to lessons. This therefore may cause a delay in successfully implementing online teaching and learning. More training therefore needs to be done. This learning method should be tailored for the needs of different subjects. The participant could be reluctant due to the poor fit between the technological programme used and the current subject demands.

4.5.1.2 Finding 2: The state of readiness of online teaching and learning

The interview question that drives this sub-theme is - What can you say about your readiness to use online teaching and learning in this college? This sub-theme

presents two categories, namely pro-active and reluctance regarding online teaching and learning as well as reasons for this.

Category 1: Narrative of personal readiness for online teaching and learning

The pro-active perception is extracted from lecturers who expressed positive attitudes in implementing online teaching and learning.

> *I really love and enjoy teaching online (Lecturer D).*
>
> *Personally, I don't mind using online teaching and learning (Lecturer B).*
>
> *Personally, I am ready (Lecturer C).*
>
> *For my side, I can say that I don't mind it all (Lecture J).*

The above participants had a positive attitude based on their opinions of online teaching and learning.

Three lecturers were reluctant to use technology in online teaching and learning. Below are the reasons:

> *Online teaching and learning are not a bad thing, it's just that it does not work for other subjects like mine which are Mathematics and Mathematics Literacy …It's just that it does not work for other subjects… I am one of those who are not ready (Lecturer A).*
>
> *For the college generally, I am not sure if it's ready (Lecturer D).*
>
> *Personally, I think I am not fully ready (Lecturer E).*

Above finding demonstrate that more online training on subject-specific needs should be done so that lecturers can have a positive attitude in online teaching and learning. Reluctance to online teaching and learning by some lecturers show that there is a need to change their perceptions so that they can successfully implement online teaching and learning.

Category 2: Reasons for proactive and reluctance responses

The finding shows that there are lecturers in support of web learning as well as those who are reluctant. The reasons given by the lecturers are as below.

> *Maybe because I feel that it doesn't work for my subject (Lecturer A).*

For me it is a good thing, especially since we are headed to the fourth industrial revolution (Lecturer B).

…because I am currently doing it with my level 4 students, just that I constantly have to familiarise myself with some of the functions now and again to be able to excel (Lecturer C).

…because I still have to familiarise myself with the online teaching and learning platform that is currently being introduced (Lecturer G).

The reasons mentioned by lecturers above demonstrate that there is a gap that needs to be filled in order to ensure readiness in online teaching and learning, and for lecturers to change their attitudes towards this.

Category 3: Institutional readiness

This category describes participants' perceptions regarding institutional readiness for online teaching and learning.

Some lecturers indicated that the college is also not ready. They said:

For the college generally, I am not sure if it's ready because the platform that we are using which is Bright space sometimes it delays us especially us in the Engineering Nated studies because our time is very short, 3 Months, so sometimes subjects are not loaded, and this causes a delay (Lecture D).

I don't think the college is generally ready to implement online teaching and learning simply because of the lack of resources and students as well don't have data so connecting to the online platform will be a problem (Lecturer J).

I don't think the college is ready because we still have not yet upgraded and I don't think the students are ready as well because they can't go online without laptops and some of them don't even have proper cell phones. (Lecture G)

Participants were generally of the opinion that the college was not ready for online teaching and learning in terms of resources as well as the support for students and lecturers to be able to use the technology. This finding highlights the different areas

that need attention to enable the shift in teaching methodology from traditional face to face to online teaching and learning.

4.5.1.3 Finding 3: Description of readiness to implement online teaching and learning.

The third interview question under this theme was - How can you describe readiness in implementing online teaching and learning? The description of readiness explains lecturers' views of what it entails to ensure readiness for online teaching and learning. Lecturers expressed their views as follows:

> *Readiness simply means that lecturers and students are well skilled and trained and have all resources needed for online teaching and learning. If all that is covered that we can be ready (Lecturer A).*
>
> *Readiness is making sure that everyone has all the resources needed, gadgets, data and training and ensuring that everyone is willing to learn (Lecture B).*
>
> *In my view, readiness is for example, lecturers having been trained to conduct lessons online and students as well, data be given to students, and they must also be provided with gadgets for online teaching and learning (Lecturer C).*

The above description of readiness by lecturers shows the conditions to be met to facilitate the successful implementation of technology in teaching and learning. The narrative also suggests a gap in training the lecturers and supporting learning so that they fully benefit from online facilities. Resources seem also to be a limiting factor and a gap in the implementation of digital learning activities.

Lecturers must be academically advanced to become main role players in embracing technology and encouraging the full utilisation of online platforms. By doing so, they inspire and motivate students to do the same. Thies (2018) agrees and further suggests that institutions of higher learning should invest in technology. Quality standards should be set, and adaptation and responsive ability must be robust enough to cope with the increasing pace of innovation. Similarly, lecturers E and G also stated that the college must invest in technology so that online teaching and learning can be implemented successfully. TVET College embraces information

technology, and lecturers are willing to learn more about technology, provided that resources are available.

This theme focused on exploring the perceptions of lecturers at a selected TVET College regarding their readiness to implement online teaching and learning. Simamora et al. (2020) state that some lecturers support online teaching and learning while there are others who are sceptical about it due to lack of proper guidelines.

4.5.2 Theme 2: Challenges experienced by lecturers regarding online teaching and learning

This theme is based on the second research question - What challenges do lecturers at a selected TVET college experience regarding online teaching and learning? There were two interview questions formulated to generate data to answer this research question. The responses of the participants are presented in the following sub-themes.

4.5.2.1 Finding 1: Challenges and factors that college lecturers experience that may cause delay in implementing online teaching learning.

The first interview question under this theme was - What are some of the challenges that college lecturers experience that may cause delay in implementing online learning? The findings showed that lecturers were faced with challenges, which are discussed under the categories below.

Category 1: Lack of resources for online teaching and learning

In this category, lecturers mentioned that they do not have resources to implement online teaching and learning. Below is their argument:

> *Students don't have gadgets, most of them don't have smart phones and when the laptops were distributed some got and some did not get, and then the issue of load-shedding is also a serious problem and data as well (Lecturer A).*

> *Some of the gadgets are not compatible for the type of system we want to implement because it takes forever to load, and some functions are not there on Bright-space platform compared to Teams (Lecturer C).*

I think the challenge is insufficient computer labs and sometimes students cannot submit the assessments on the said due date because they say it is always full in the computer labs (Lecturer F).

The challenges above include lack of computers, smart cell phones and data. The lecturers argue that these hinder them from implementing online teaching and learning. This seems to affect both students and lecturers. This indicates that to successfully implement online teaching and learning, the college must first ensure that there are resources, materials and resources that facilitate student learning. This fact has a negative effect on how lecturers perceive the use of technology for teaching and learning in some subjects. Online programmes and the technology used must be compatible for effective teaching and learning.

Category 2: Lack of access: Internet connectivity and data

Apart from the physical resources, the lecturers mentioned that connectivity is an issue because they can only connect when they are inside the college where Wi-Fi is available because they cannot connect from home as the college does not give them data. Below is some of the arguments:

……and data as well is a challenge for students (Lecturer B).

Even us as lecturers sometimes when the internet is down, we cannot access the learning platform and so we rely on the internet from the college (Lecturer F).

I think it's mostly the issue of load shedding, sometimes the generator is not working and again the issue of data because we are not getting any from the college (Lecturer I).

The above challenges mentioned by lecturers indicate that the college must cater for the challenges related to connectivity and data so that online teaching and learning can be implemented successfully. There seems to be lack of measures being taken to ensure that all students are able to access and benefit from the online teaching and learning mode. Regarding teaching, the alternative source of power for connectivity seems not to be effectively managed, and there are gaps that affect teaching and learning when there is no electricity. This category also highlights the

nature of the programme used, which appears not to meet the needs of some subjects.

Lecturers in the TVET College indicated that the lack of access to online facilities and data connectivity is a challenge for them to enable web learning. Some of their arguments are as follow:

> *In the case of lecturers', I don't think there are major challenges because lecturers have resources themselves, but the problem is from the side of students as they don't have access to laptops and cannot access learning materials that we upload at their convenient time. And data as well is a challenge for student (Lecturer B).*

> *I think data could be a factor since we get to have internet only at the college and we don't have at home (Lecturer H).*

The challenges above about access, internet and data connectivity reveals that the college may not be ready to implement online teaching and learning as of yet. This therefore indicates a gap in terms of online teaching and learning at this college. Management as well as other stakeholders at this college need to ensure that they give data to both students and lecturers so that they are all able to connect to the online platform and deliver lessons efficiently and effectively.

Category 3: Lack of training

Below is a comment by one lecturer about training:

> *…. So I think if the college can have a workshop to teach students how to use Bright-space and how to log in (Lecturer D).*

From the above comment, students are unable to use the online teaching and learning platform and will therefore need adequate training. The lecturer seems to be concerned about the learner inability to use the Bright-space programme. This is a gap that needs to be filled to enable the learners to fully benefit from the course.

4.5.2.2 Finding 2: The influence of online teaching and learning subjects

The third interview question was **-** From your experience, what are the factors that hinder the use of online teaching and learning? The categories below are the findings based on responses from the interview question.

Category1: Reluctance in implementing online teaching and learning.

Some lecturers mentioned that online teaching and learning does not work. Below is what they stated:

> *Like I said before, for my subject it does not work at all (Lecturer A).*
>
> *I don't think it is beneficial because students still need to understand the basis of the subject and understand content from the physical contact before going online (Lecturer F).*
>
> *For my subject I don't think it will work because like I said I need face to face with students to demonstrate the tasks (Lecturer I).*

From the above quotations, there is a need to change lecturers' perspectives of online teaching and learning by solving the issue of programme incompatibility. The suggestion for physical teaching sessions before exposing the learners to contact session's show that lecturers still feel more comfortable using the face-to-face teaching mode compared to online structures.

Category 2: Pro-active influence of online teaching and learning subjects

Some lecturers were positive towards the use of digital method in their teaching and learning. Below is what some of them said:

> *My subjects are theory subjects so online teaching and learning; I think it might have a positive influence hopefully in my subjects (Lecturer B).*
>
> *Well I think it has a positive influence though there is always a room to want to learn more (Lecturer D).*
>
> *For my subject since I also teach computer, I think it will not be bad at all to teach online and students I think they will enjoy it more (Lecturer J).*

The above comments show that some of the lecturers mentioned above do not mind web-based learning in their subjects. The lecturers not only supported and used online teaching and learning but were also willing to be more developed in using technology.

Category 3: Reasons for pro-activeness on the influence of online teaching and learning subjects:

Some lecturers advanced reasons about the influence of online teaching and learning subjects.

> *Well for my subject which is English, I don't think I will struggle much since it does not require any practical's (Lecturer H).*
>
> *For my subject since I also teach computer, I think it will not be bad at all to teach online and students I think they will enjoy it more (Lecturer J).*

From the above comments, reasons towards online teaching and learning were provided. It seems that there are some subjects that are more technology-friendly than others. The content as well as the application of the content in particular subjects seem to require the use of online resources.

Category 4: Reasons for being reluctant in using online teaching and learning.

Some of the lecturers below mentioned their reasons for being reluctant towards online teaching and learning, follows:

> *….. but unfortunately, we don't have resources to implement such (Lecturer E).*
>
> *For my subject I don't think it will work because like I said I need face to face with students to demonstrate the tasks (Lecturer I).*

The above reasons mentioned indicate a gap at the college in online teaching and learning. While some lecturers seem pro-active in the use of online teaching, others were reluctant, claiming that the subject master is not technically covered.

The starting point for this theme was: challenges and factors of online teaching and learning with two sub-themes, namely: (i) challenges and factors that college lecturers experience that may cause a delay in implementing online teaching and learning; and (ii) the influence thereof in subjects. From this theme, the researcher discovered that there are many challenges of online teaching and learning as outlined. On the other hand, Wangmo et al., (2020) regard online teaching and learning as one of the best platforms embraced by many institutions. This statement is further supported by an article by Arizona State University (ASU), which indicates that more students find that the traditional teaching and learning style does not fit

their needs, and they are looking forward to making a change that suits them both in and out of the classroom (Kissel, 2019). From the above, the researcher concluded that with sufficient support from all stakeholders, challenges of online teaching and learning can be resolved at this college.

4.5.3 Theme 3: Addressing challenges of online teaching and learning

In this theme, the following research question was answered - How do the lecturers at a selected TVET college address the challenges they experience in online teaching and learning? In addressing this research question, interview questions were asked and the findings from the interviews are presented in the following sub-themes.

4.5.3.1 Finding 1: How lecturers deal with the challenges that they experience regarding online teaching and learning

There are three categories in this sub-theme. The participants' responses relate to the interview question – how do lecturers deal with challenges they experience regarding online teaching and learning? Responses from the participants showed in category 1 that there were lecturers who were pro-active in dealing with online teaching and learning, others were reluctant as reported in the second category and the last category includes reasons mentioned by lecturers on how they responded to the challenges.

Category 1: Proactive solutions to challenges of online teaching and learning

Below are quotations from lecturers who positively responded to challenges they experience in online teaching and learning:

> *So with me, what I do is that I use WhatsApp, and if they have questions they post them on the group chat and I respond and also give work on the group chat. It is better for them because they normally have WhatsApp data, those who have smart phones, so somehow that works for me (Lecturer A).*
>
> *We are unable to upload content when we are at home so we have to wait to get to work first so that we can upload and sometimes we forget (Lecturer H).*
>
> *Well on my side I do the traditional face to face classroom teaching and learning to accommodate all students (Lecturer C).*

Well at the moment, I and some of the lecturers we do the traditional face to face teaching and learning because it works for us (Lecturer E).

From the above responses, it seems that some lecturers continue to strive to use online teaching and learning while others use face to face teaching and learning because of many challenges that they have mentioned. The use of the two different modes affirms that the use of online teaching and learning is yet to be developed further for it to be used uniformly at the institution. This finding also shows that there is lack of consensus regarding the way forward in cases where there are barriers to the use on networked learning.

Category 2: Reasons for not using online teaching and learning methods

Some lecturers have mentioned that online teaching and learning does not work for them. Below are their arguments.

In my case I don't use any online teaching currently, I did it during COVID, but it did not bring out as much results as I wanted to, so after COVID I went back to face to face and that is what I am still doing currently (Lecturer B).

We suggested to management; they have acknowledged the concerns, but nothing has been done so far. So, most of us lecturers are teaching face to face (Lecturer F).

We discussed the challenges in our meeting with management, but nothing has been done so far, so they are aware of the challenges. Currently we teach face to face (Lecturer G).

We are unable to upload content when we are at home…we have to wait to get to work first so that we can upload and sometimes we forget (Lecturer H).

Reluctance to use online teaching and learning indicates that there is a gap that needs to be filled so that the lecturers' perceptions towards online teaching and learning may change. This reluctance may be due to challenges and factors mentioned by lecturers that may hinder them from successfully implementing online teaching and learning. This indicates that the college needs to do more to alleviate or reduce challenges regarding online teaching and learning at the college.

Category 3: Reasons for proactive and being reluctant to use online teaching and learning

Despite many challenges faced at the college, some lecturers were still positive towards the implementation of electronic media while others were sceptical. Here are some of the reasons they gave that support pro-active lecturers and the lecturers who were reluctant to use online teaching and learning:

> *…but now and again I would ask them to switch on their videos so that I can see them and ask questions looking at them (Lecturer D).*

The above reason mentioned indicate that in order to ensure that students are paying attention to the lessons presented, the lecturer would ask them to switch on their cameras. This not only authenticates face to face human interaction, but also shows the level of trust by some lecturers when it comes to students attending online teaching and learning sessions. Other lecturers seem to be satisfied with faceless interactions during online teaching and learning.

4.5.3.2 Finding 2: Recommendations that could ensure readiness to implement online teaching and learning in the college.

Lecturers suggested some recommendations that could ensure readiness. These recommendations are divided into four categories:

Category 1: Recommendation for availability of data

Some lecturers recommended that the college must provide data to them as well as the students so that online teaching and learning can be implemented successfully. Below is what they said:

> *To the stakeholders as well as well as management, they really need to equip everybody concerned with everything that we need like for example, I have data only when I am at work, so when I need to consult with my students at home, I use my own data which is not fair, so if they need this thing to work properly, let them equip everybody, lecturers and students with everything that they need, then it will work like that (Lecturer A).*
>
> *There is one good thing that the college is doing which is giving students sim-cards that have data, if that can be done on time and we have a workshop*

before the class start so that all students can be able to know how to use the online platform, because it is a very good platform to use (Lecturer D).

Management must provide staff with data, and training as some of us are unable to use the Brightspace online platform. And provide data to students as well (Lecturer H)

From the above comments, it seems that the availability of data plays a major role in successfully implementing online teaching and learning. Both lecturers and students need data for online activities.

Category 2: Recommendation for laptops and smart cell phones

Some lecturers recommended laptops and smart phones for them as well as students. Below is what some of them said:

I would advise the college to make sure that every student has laptop, phones that can access learning material for any online learning platform…. (Lecturer B).

Provide more computers, laptops for students, data and training (Lecturer J).

Both lecturers and students require gadgets such as computers and laptops to deliver online teaching and learning successfully. Students also need data to access the online teaching and learning platform as well as materials required.

Category 3: Recommendation for skills development for lecturers and students to use electronic media at home.

For this type of learning to be successful in this college, training is required for both lecturers and students on how to effectively use the online teaching and learning platform. Below is what some of the lecturers suggested:

……. we have a workshop before the class start so that all students can be able to know how to use the online platform, because it is a very good platform to use …… (Lecturer D).

Well, I would recommend training to both students and lecturers, data even when we are at home so that we can have on going sessions, as well as resources such as laptops for students to access the online teaching and learning platform (Lecturer E).

Training is a necessary skill required in this college so that online teaching and learning is done successfully. It seems that there is a gap in training that should be discussed and implemented by the stakeholders.

Category 4: Recommendation for recording lectures for the students

One of the lecturers recommended that the lecturing staff must also record their lessons and transfer them on the online platform so that students who did not understand can always go back to the recording and listen again. Below is what the lecturer said:

> *….. I record myself, take the recordings and transfer them to Bright-space, students who did not understand can also be able to listen to those recordings again (Lecturer D).*

The recording of the teaching and learning content by lecturers can be beneficial to students, especially those who could not log-in to the online teaching and learning platform at the time of the lesson. They can always go back and listen in their convenient time.

From the literature review, lack of resources was indicated as some of the challenges which cause delay in online teaching and learning (Mishra et al., 2020: Van Wart et al., 2020). This is like the views and opinions also stated by participants in the study, who indicated that they need data, computers and training in order to successfully implement online teaching and learning. This is one of the reasons lecturers in this college are still using the traditional face to face method. The college still has a long way to go.

Finding two of this study address a variety of challenges that hinder the successful implementation of online teaching and learning at this college. Finding two of this study is in line with sentiments shared by Akçayır and Akçayır (2018), who emphasised the maintenance and high costs of online technologies and resources. Lack of training from both students and lecturers in using technology for online teaching and learning is also a challenge.

4.5.4 Theme 4: The support that can be provided to lecturers at a selected TVET College to successfully implement online teaching and learning

This theme strives to answer the research question - What support can be provided to lecturers at a selected TVET college to successfully implement online teaching and learning? Lecturers mentioned different types of support that they need to successfully implement online teaching and learning. This support is presented in three sub-themes, namely: material support, skills development support and as well as financial support.

4.5.4.1 Finding 1: Material support

Some lecturers in the TVET College involved in this study indicated that they need material support to successfully implement online teaching and learning. Below is what some of them mentioned:

> *We need all the support we can get, first it more computer labs, training and resources such as data to ensure successful implementation of online teaching and learning (Lecturer A).*
>
> *…support is if the college can have enough resources especially on the side of the students for online teaching, it will help students to understand how to use online platforms to learn. Only if the college make resources available then it is then that as a lecturer, I ensure that they use resources adequately and to their own benefit (Lecturer B).*
>
> *I think access to the internet even when are at home so we can continue to support students. From students side its computer labs, internet and gadgets such as laptops (Lecturer F).*

From the above comments, having material support is regarded as important for the successful implementation of online teaching and learning. Without physical materials like computers and software like connectivity, online teaching and learning may not be possible. The provision of inadequate material resources may also have a negative influence on successful implementation. The resources required as indicated by the participants should be able to cover work done at college premises as well as work done at home.

4.5.4.2 Finding 2: Skills development support

Apart from the physical resources, some of the participants indicated that they need skills support to implement online teaching and learning. They put it as follows:

> *Various workshops and training for both students and lecturers, data and gadgets for students, more computer labs in the college is needed (Lecturer C).*
>
> *We need an ongoing support such as attending workshops, and any support would be very beneficial at this stage especially with technology as it evolves (Lecturer E).*
>
> *If we can get training and students as well, they need training to be able to use the online platform (Lecturer G).*

The above quotations show that virtual learning seems to be prematurely introduced in the colleges since both lecturers and students had insufficient skills to use technology. In such situations, the support needed is development of skills for successful implementation of online teaching and learning.

4.5.4.3 Finding 3: Financial support and motivation

The participants also mentioned general financial support and motivation as some of the things that they needed for successful implementation of online teaching and learning. They argue as follows:

> *A bit of motivation maybe as to why it should be done, and financial support as well and all resources required (Lecturer I).*
>
> *It is mostly financial support so that the college can buy computer and other staff that we might need (Lecturer J).*

Financial support and motivation as needs may cover the gap in physical material and skills development. Money could be used to purchase physical resources. Motivation and financial support could enable skills development for lecturers as well as students for the successful implementation of virtual education.

The findings of this study revealed that it would be difficult for the college to implement online teaching and learning if there is no proper support. The findings of this study are in line with Viberg et al. (2020), who support the usage of

instructional support to understand learning materials that affect the teaching and learning process.

4.6 SUMMARY OF CHAPTER 4

This chapter presented data presentation, analysis and discussion of results, which were also compared with similar studies reported in literature. The interview questions and the responses from lecturers were categorised into themes, sub-themes and categories. The next chapter concludes the study by providing a summary of the findings, conclusions and recommendations. Limitations and delimitations of the study were also discussed.

CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

In the previous chapter, the researcher discussed data presentation, analysis and discussion of results of study. The current chapter highlights summary of findings, conclusion and recommendations of the entire study. The chapter also highlights the researcher's thoughts on how best to implement online teaching and learning. The study reported a response to perspectives of lecturers in TVET College towards the implementation of online teaching and learning. The study engaged lecturers' thoughts to obtain deeper and more meaningful insight. The study further recommended ways in which online teaching and learning can be successfully implemented in the college and the learning environment that is conducive to online teaching and learning approaches. Most importantly, most lecturers had common sentiments in terms of resources required for online teaching and learning and how they thought successful learning experiences can be facilitated. The study responded to the main research question which state "What are the perspectives of lecturers at TVET College regarding their readiness to implement online teaching and learning"? and also the sub-questions: What challenges do lecturers at TVET college experience regarding online teaching and learning? How do the lecturers at TVET College address the challenges they experience in online teaching and learning? What support can be provided to lecturers at TVET College to successfully implement online teaching and learning? were answered by the study:

5.2 REFLECTIONS OF THE RESEARCH JOURNEY

This research journey was not easy at all. Personally, I had to deal with both academic and personal challenges. At some point, I thought that this academic journey was not for me as it demanded most of my time and I had to make many sacrifices, including time spent with family and friends. When I reflect, I can now confidently say I have equipped myself with immense knowledge in academia and I

am even eager to learn more and pursue my studies further and be able to fill the gap and empower knowledge.

From writing my proposal, I had no clue of exactly what it was that I was doing or writing. The terminology used were very challenging as I would often have to go back and forth trying to understand what it was all about. These terminologies included words such as ontology, epistemology, research paradigm and many others. My supervisor kept returning the work to me to fix, and at times I felt that it was too much for me to handle. At times I would even wonder if this world of academia is also meant for me. After the proposal was finally approved by the supervisor, I ended up passing and going to the next phase which was writing of the dissertation. It was a little bit better because of the prior knowledge gained from doing my research proposal. I however had to work more and read as many articles and books as I could so that I was able to write and expand on my work.

To acquire my ethical clearance certificate, my supervisor assisted me in completing the application form and ensured that I completed all the necessary information thoroughly according to all acceptable standards and requirements. Upon receiving my ethical clearance certificate, I sent it to the college together with all other documents to seek permission to conduct the study. Permission was then granted, and I started the process of collecting data from selected participants. I arranged with them on the time and date of the interview. Some lecturers were committed and showed up as agreed. But I had to call some of the lecturers to remind them of our appointment. My overall journey was very interesting, and I must say that I am better equipped now in the world of academia and I am excited with my next journey.

5.3 SUMMARY OF FINDINGS

In the section below, I present the summary of research findings.

5.3.1 Perspectives of lecturers at a TVET College regarding their readiness to implement online teaching and learning

In this study, lecturers described their readiness to implement online teaching in different ways. While there were lecturers who seem ready and were proactive in using online platforms in teaching and learning, there were others who were not

ready, and they were reluctant to use technology in teaching and learning. The reason that the lecturers gave for being proactive in the use of technology is that it provides consistency in lesson delivery as the recorded lessons can be used in more than one class or session. The lecturers were also of the opinion that some students feel less threatened engaging and interacting with them and other students online instead of face-to-face. Furthermore, the digital influence among the youth as perceived by the lecturers makes online teaching and learning more acceptable in TVET College. This made some lecturers more proactive in using technology. The lecturers who were reluctant to use technology perceived lack of knowledge and skills required in using technology as a barrier. Furthermore, they were of the opinion that there is a lack of tailor-made online courses for the needs of different subjects, which makes online lessons not a good fit for teaching their subjects. In terms of institutional readiness, participants believed that the college was not ready for online teaching and learning due to lack of essential resources needed by staff to engage in digital education.

5.3.2 Challenges and experiences of lecturers regarding online teaching and learning

Lecturers in this study mentioned several challenges, which are also factors that hinder them from successfully implementing online teaching and learning. One of the challenges is lack of resources like computers, smart cell phones and data bundles. Apart from the physical resources, connectivity is poor or lacking such that the lecturers and students are only able to use the internet inside the college due to Wi-Fi availability. The lecturers and students are not able to work online at home due to lack of data and connectivity. Another challenge was lack of training in the use of technology as well as programme incompatibility. The absence of subject specific online courses was a challenge that made some lecturers continue to use face-to face physical teaching sessions. Other lecturers preferred face-to face teaching and learning sessions, stating that it encourages students to be active during the lesson. The findings suggest that there could be limited dialogue between lecturers and students during online sessions, meaning that service providers should consider creating opportunities for students to participate during the online sessions.

5.3.3 Addressing the challenges of online teaching and learning

This study reports on how lecturers who participated in this study deal with the challenges that they experience regarding online teaching and learning. Some lecturers reported that they identified the challenges that they experience to the management of the college, but nothing was done so far. They continue using traditional face to face type of teaching and learning instead of using the online platform. Some lecturers indicated that they are using WhatsApp as an interim solution. Regarding the challenge of interaction during online sessions, some lecturers encouraged students to switch on their cameras during the lesson to create a sense of human interaction and affirmation of the presence of students during the online session. Other lecturers seem to be satisfied with faceless interactions during online teaching and learning. Some lecturers also recorded the lessons and made it available to students to access it when they can login or at a convenient time when they can listen to the lesson recordings. Lecturers who could not use online programmes in their subjects due to subject requirements continued with face-to face teaching and learning. Regarding the challenge of lack of data bundles, some lecturers believed that the TVET College should provide students with data to enable them to engage in online teaching and learning at college and at home. Lecturers expressed the need for data, laptops and smart cell phones, and skills development for lecturers and learners to be able to use electronic media at the college and at home as crucial for the success of online teaching and learning.

5.3.4. Support that can be provided to lecturers at TVET College to successfully implement online teaching and learning

This theme presented support that can be provided to lecturers at TVET College to successfully implement digital education. The lecturers highlighted the need for support in ensuring that physical materials such as computers and software like connectivity are available to make online teaching and learning effective. The gap caused by inadequate material resources is likely to inhibit the successful implementation of online teaching and learning at work site as well as at home. Besides the physical resources, the lecturers indicated a need for support in developing skills required. These findings also emphasised the importance of financial support for purchasing the physical resources and paying for connectivity

as well as motivation. The latter seems crucial to encourage lecturers to go for professional development for the skills needed. Students also need to be motivated to use and be familiar with the online platform for learning purposes.

5.4 DELIMITATION OF THE STUDY

Delimitations are a framework consciously set by the authors themselves (Theofanidis & Fountouki, 2018). They are also characteristics which arise from limitations in the scope of the study during the development of the study plan (Simon & Goes, 2013). These delimitations concern the boundaries or limits of the research so that the study's aims and objectives are achievable. This study was delimited to a selected TVET College, where lecturers took part. College students, parents and support staff were not involved. The study was conducted in one specific TVET college in Johannesburg. Data was collected using the qualitative data generation method.

5.5 LIMITATIONS OF THE STUDY

Limitations of the study can be described as factors that are out of the researcher's control which can affect the study (Theofanidis & Fountouki, 2018). Limitations must be acknowledged in the study as they affect the overall study design, results and conclusions. In this study, time to contact the interviews was limited due to the daily work schedule of the participants. Some of the participants were not willing to be interviewed, and others were reluctant to provide detailed responses during the interview. There is a possibility of missing or inadequate data due to participants' withdrawal or rushing through the interview. In such cases, the researcher did follow-up interviews to improve the quality of data.

5.6 CONCLUSION

Evidence from this study indicates that online teaching and learning at the college is an activity which is complex to implement. The activity involves ensuring that lecturers can fully organise and deliver online lessons to students, and in return students are able to access lessons from the platform and to interact with lecturers. Perspectives of lecturers towards the successful implementation of online teaching and learning are of the utmost importance as they are at the forefront of online teaching and learning. A variety of methods employed by lecturers are detrimental

to the success of the online teaching and learning process. This process is important so that students do not lose focus on the lessons presented and to ensure that there are no withdrawals. It is therefore important for the lecturers to select methods that are effective to ensure successful implementation of online teaching and learning.

5.7 RECOMMENDATIONS FROM THE FINDINGS

Curriculum studies in TVET colleges should be developed in a way that will fit into the trend towards manufacturing technologies and processes by allowing full implementation of digital technology innovation. Both students and lecturers are to be academically advanced to become the main role players in embracing technology and encouraging the full utilisation of online platforms that would inspire and motivate students to do the same. Academic support strategy from the Department of Higher Education and Training should be clear; resources and equipment should be provided. A transparent budget that will assist in academic support should also be provided to ensure efficiency. Quality standards should be set and adaptation and responsive ability must be robust enough to cope with the increasing pace of innovation.

5.7.1 Recommendations from Theme 1

Perspectives of lecturers at a selected TVET college regarding their readiness to implement online teaching and learning was the focus of theme one. Most of the lecturers who participated in the study had positive responses on their perspectives towards online teaching and learning with a few negative experiences. The recommendations are:

- The TVET College should provide workshops and seminars to get all the lecturers ready for the use of technology in their lectures and support students.
- There is a need for the technical staff at the TVET College to showcase the advantages of the use of technology which may encourage reluctant lecturers to use technology.
- TVET colleges should empower lecturers and students with technical skills which may change their perspectives towards the use of electronic media so that they may be more proactive.

- Programmes should be designed and tailor-made to meet the needs of different subject areas and topics so that different lecturers may be motivated to use the online platform.

5.7.2 Recommendations from Theme 2

Theme two presented challenges hindering the implementation of online teaching and learning. The recommendations made are as follows:

- The TVET College must ensure that there are resources for online teaching and learning such as computers for both lecturers and students, smart-phones and data bundles.
- The Ministry of Education should ensure that WIFI centres are available in the community to improve internet connectivity which would enable the lecturers as well as the students to work from home using electronic media.
- Programme designs must ensure that there are the training materials available are relevant and can address the challenges related to the delivery of different modules.
- Online courses should be designed by programme developers in a way that gives students the opportunity to participate during the lessons. More opportunities for dialogue between the lecturers and the students must be part of the design of the programme.

5.7.3 Recommendations from Theme 3

Theme three is about addressing the challenge experienced by lecturers at a TVET College regarding online teaching and learning. Recommendations based on how the lecturers in this study address the challenges they experience are as follows:

- The TVET College and other stakeholders should ensure the availability of data for lecturers as well as students.
- A system must be put in place by the ministry of education and TVET colleges that makes laptops and smart cell phones available to all students to ensure that online teaching and learning takes place.

- Professional skills development for lecturers and students should be a continuous exercise in the colleges.
- Network providers must enlarge the cover areas to enable students to use electronic media at home.
- TVET college lecturers should create the use of WhatsApp to reach students who are more comfortable in using smart phones.
- Lecturers should consider the use of cameras in their classroom sessions during the interaction between the lecturer and the students, and among the students to bring the human interaction experience in the lectures.
- Lecturers should prepare lessons that are recorded during the learning sessions. Such recorded lessons should be made available for students to use after the sessions. Students who are unable to attend the sessions due to poor connectivity and other reasons may use the recorded lectures so that they are not left behind.

5.7.4 Recommendations from Theme 4

Theme four discussed the findings on the support that can be provided to lecturers at TVET College to successfully implement online teaching and learning. Lecturers who participated in this study made the following recommendations in terms of this theme:

- The Ministry of Education should ensure that TVET colleges get material support such as laptops/computers/smart phones.
- TVET administrators and managers must ensure skills development support such as training on how to use the online teaching and learning platform.
- TVET colleges should receive financial support to ensure the availability of data or Wi-Fi connectivity.
- College administrators should invite motivational speakers to encourage both lecturers and students to use technology.
- TVET colleges may organise special occasions for lecturers to showcase how they use technology in their classrooms. Such occasions could also include student projects that engage the use of technology.

5.7.*5 Recommendations for future research*

This study explored lecturers' perspectives on the readiness to implement online teaching and learning.

The researcher recommends the following for future research:

Researchers should explore how some universities ensured readiness in their online teaching and learning and link it with TVET college readiness.

- *A model should be used in TVET colleges for online teaching and learning to be successful.*
- *Further studies on the selected model to ensure viability and credibility in promoting readiness in TVET colleges.*
- *Further studies on measures to be taken by the Department of Higher Education and other stakeholders to ensure readiness in TVET colleges for online teaching and learning.*

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APPENDIX A: ETHICS CLEARANCE CERTIFICATE

UNISA university of south africa

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2023/06/07

Ref: **2023/06/07/58542906/32/AM**
Name: Ms PC Mokgatlhe
Student No.: 58542906

Dear Ms PC Mokgatlhe

Decision: Ethics Approval from 2023/06/07 to 2026/06/07

Researcher(s): Name: Ms PC Mokgatlhe
E-mail address: 58542906@unisa.ac.za
Telephone: 078 381 5987

Supervisor(s): Name: Dr T.A. Ogina
E-mail address: oginateresa8@gmail.com
Telephone: +254719288098

Title of research:

LECTURERS' PERSPECTIVES ON THE READINESS TO IMPLEMENT ONLINE TEACHING AND LEARNING AT EKURHULENI TVET COLLEGE

Qualification: MEd Education Management

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 2023/06/07 to 2026/06/07.

*The **medium risk** application was reviewed by the Ethics Review Committee on 2023/06/07 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.

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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 **2026/06/07**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2023/06/07/58542906/32/AM** *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Kind regards,

Prof AT Motlhabane
CHAIRPERSON: CEDU RERC
motlhat@unisa.ac.za

Prof Mpine Makoe
ACTING EXECUTIVE DEAN
qakisme@unisa.ac.za

APPENDIX B: PROOF OF REGISTRATION

UNISA university of south africa

0938

MOKGATLHE P C MS
P O BOX 306
ORKNEY
2620

STUDENT NUMBER : 58542906

ENQUIRIES TEL : 0800 001 870

eMAIL : mandd@unisa.ac.za

2024-03-29

Dear Student

I hereby confirm that you have been registered for the current academic year as follows:

Proposed Qualification: MED (EDUC MANAGEMENT) (98405)

CODE	PAPER	S	NAME OF STUDY UNIT	NQF crdts	LANG.	PROVISIONAL EXAM.DATE	EXAMINATION CENTRE(PLACE)
Study units registered without formal exams:							
@ DFEDU95			MEd - Education Management	**	E		
DFEDU95			MEd - Education Management	**	E		

@ Exam transferred from previous academic year

You are referred to the "MyRegistration" brochure regarding fees that are forfeited on cancellation of any study units.

Your attention is drawn to University rules and regulations (www.unisa.ac.za/register).
Please note the new requirements for reregistration and the number of credits per year which state that students registered for the first time from 2013, must complete 36 NQF credits in the first year of study, and thereafter must complete 48 NQF credits per year.
Students registered for the MBA, MBL and DBL degrees must visit the SBL's ESOnLine for study material and other important information.
Readmission rules for Honours: Note that in terms of the Unisa Admission Policy academic activity must be demonstrated to the satisfaction of the University during each year of study. If you fail to meet this requirement in the first year of study, you will be admitted to another year of study. After a second year of not demonstrating academic activity to the satisfaction of the University, you will not be re-admitted, except with the express approval of the Executive Dean of the College in which you are registered. Note too, that this study programme must be completed within three years. Non-compliance will result in your academic exclusion, and you will therefore not be allowed to re-register for a qualification at the same level on the National Qualifications Framework in the same College for a period of five years after such exclusion, after which you will have to re-apply for admission to any such qualification.
Readmission rules for M&D: Note that in terms of the Unisa Admission Policy, a candidate must complete a Master's qualification within three years. Under exceptional circumstances and on recommendation of the Executive Dean, a candidate may be allowed an extra (fourth) year to complete the qualification. For a Doctoral degree, a candidate must complete the study programme within six years. Under exceptional circumstances, and on recommendation by the Executive Dean, a candidate may be allowed an extra (seventh) year to complete the qualification.

BALANCE ON STUDY ACCOUNT: 17965.00

Payable on or before:

Immediately: 5930.00	2024/03/31:	0.00	2024/05/15: 6017.00		2024/08/15: 6018.00		
	2024/11/15:	0.00	2025/03/15:	0.00			

Yours faithfully,

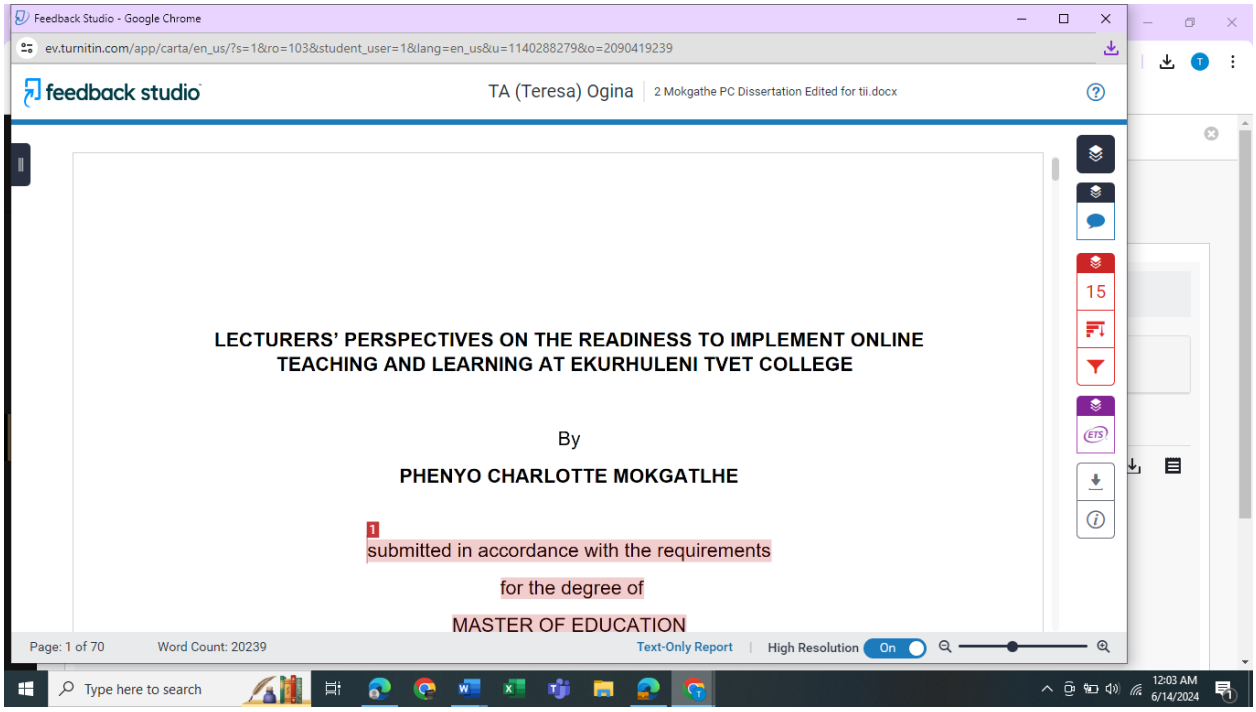
Prof MM Sepota
Acting Registrar

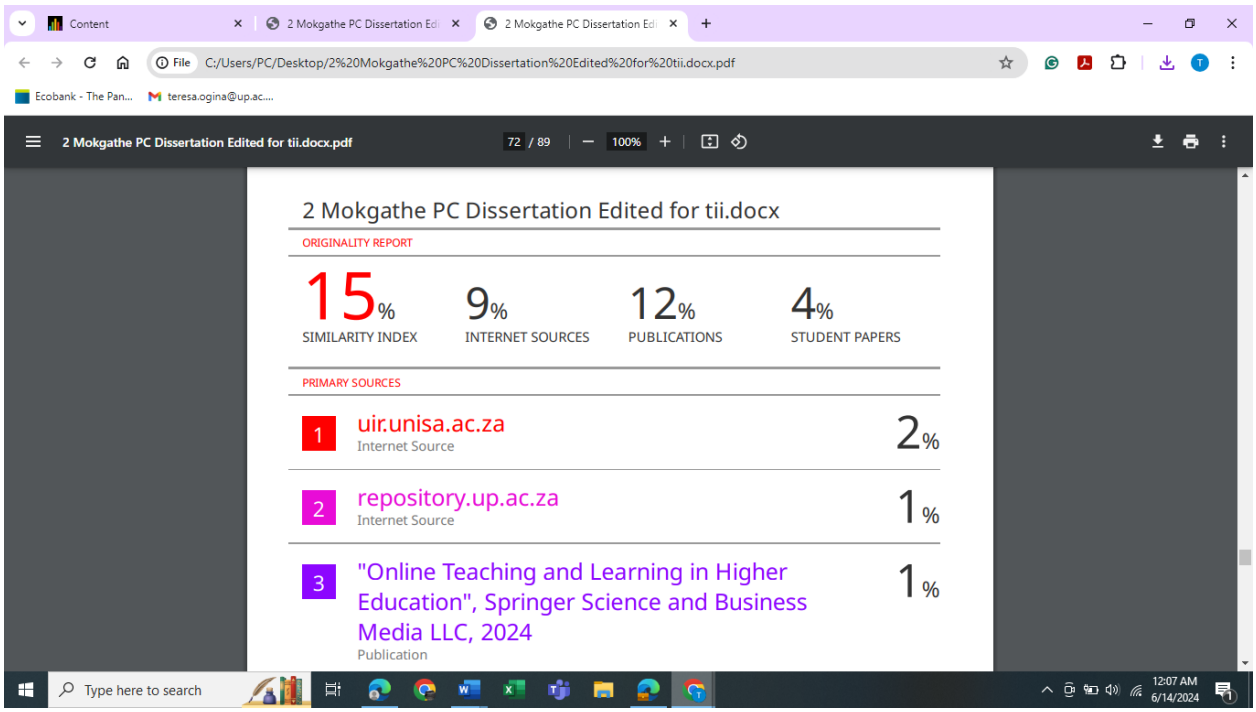
1031 O 00

UNIVERSITEIT VAN SUID-AFRIKA PRETORIA UNIVERSITY OF SOUTH AFRICA

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

APPENDIX C: TURN IT IN ORIGINALITY REPORT





APPENDIX D: LETTER REQUESTING PERMISSION TO CONDUCT THE STUDY: TVET COLLEGE

Request for permission to conduct research at Ekurhuleni West TVET College (Kempton-Park campus)

Title of the research: Lecturers' perspectives on the readiness to implement online teaching and learning at Ekurhuleni TVET College.

Date: 22 May 2023

Wellington Mudau
Campus Manager
079 490 7030
Wellingtonm@ewc.edu.za

Dear Mr. Mudau W

I, Mokgatlhe Phenyo Charlotte am doing research under supervision of Dr. T.A Ogina, a Senior Lecturer in the Department of Educational Leadership and Management towards an M Ed in Education Management at the University of South Africa. We have funding from Mining Qualifications Authority for effective research outcome of the study. We are inviting you to participate in a study entitled "Lecturer perspectives on the readiness to implement online teaching and learning at Ekurhuleni TVET College".

The aim of the study is to explore lecturers' perspectives on online teaching and learning at Ekurhuleni TVET College.

Your college has been selected because the researcher saw it fit and has the potential of generating data to answer the research questions and fulfill the aims and objectives of the study. Semi-structured interviews with ten (10) lecturers from your campus will

be conducted to obtain information from lecturers on their perspectives regarding the readiness to implement online teaching and learning, the challenges they experience, how they address the challenges as well as the support they need in implementing online teaching and learning.

The benefits of this study are that the study will impart knowledge on the current state of online teaching and learning, the challenges experienced, what is being done to address the challenges as well as the support needed. The need for potential future research will also be established.

There will be no reimbursement or any incentives for participation in the research. Feedback procedure will entail sharing the final the draft of the research findings with the participants for verification before writing up the final report and publication.

Yours sincerely

Mokgatlhe

Mokgatlhe Phenyo Charlotte
Student

APPENDIX E: LETTER OF APPROVAL TO CONDUCT THE STUDY FROM THE TVET COLLEGE

EKURHULENI WEST TVET COLLEGE

Enquiries: Mr W Mudau

Ekurhuleni West TVET College
Kemptonpark Campus
Cnr Partridge Avenue & Pretoria road
Allen Grove
Kempton Park
1620

Tel: 010 023 3691 Mobile 079 490 7030

Dear Sir/Madam

PERMISSION TO CONDUCT RESEARCH

The matter above refers:

1. Ms Mokgatlhe PC received approval to conduct research at your campus.
2. Kindly allow her to conduct her research. Please ensure that teaching and learning is not compromised during research. Arrangements should be done in

advance on the time and date which your school will be visited.

3. Your assistance in this regard is always appreciated.

Regards,

.....

CAMPUS MANAGER

Mudau W

EWC KEMPTON CAMPUS
PRIVATE BAG X07
25 -07- 2023
KEMPTON PARK
1620

APPENDIX F: CONSENT TO PARTICIPATE IN THIS STUDY (Return slip)

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 (if applicable).
I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the tape recorder.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname (please print)
_____

_____ _____
Participant Signature Date

Researcher's Name & Surname (please print) Mokgatlhe Phenyo Charlotte

Mokgatlhe

07 August 2023

Researcher’s signature Date

APPENDIX G: PARTICIPANT INFORMATION SHEET

Date: 22 May 2023

Title: **LECTURERS' PERSPECTIVES ON THE READINESS TO IMPLEMENT ONLINE TEACHING AND LEARNING AT EKURHULENI TVET COLLEGE**

DEAR PROSPECTIVE PARTICIPANT

My name is Mokgatlhe Phenyo Charlotte and I am doing research under the supervision of Dr. T.A. Ogina, a Senior Lecturer in the Department of Educational Leadership and Management towards an M Ed in Education Management at the University of South Africa. We have funding from Mining Qualifications Authority for effective research outcome of the study. We are inviting you to participate in a study entitled "Lecturers' perspectives on the readiness to implement online teaching and learning at Ekurhuleni TVET College".

WHAT IS THE PURPOSE OF THE STUDY

This study is expected to collect important information that could impart knowledge for potential future research. The purpose of the study is to explore the perspectives of TVET lecturers on their readiness to implement online teaching and learning at Ekurhuleni College. I hope that the findings of this study will provide information on preparing for and implement online teaching and learning at TVET colleges and other similar institutions.

WHY AM I BEING INVITED TO PARTICIPATE?

You are invited because your contribution and input can assist in reaching the outcomes of the study. I believe that sharing your experience will help me obtain rich data for the study.

I got your contact details from the campus manager of the college. There will be 10 participants in the study.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

The study will involve individual semi-structured interviews with the participants. The interviews will be recorded after obtaining consent from the participants. An interview schedule will be used (see Appendix: **E**). The expected duration of the interview will be approximately 30 minutes. The participants can terminate the interview at any time, decline to answer questions, or indicate that the responses not be recorded. A copy of the transcribed interview script will be sent to the participant so that changes can be made, if need be.

It is possible that the researcher may contact the participant later to clarify certain points, or to request a further (shorter) interview to explore some details in greater depth, and to verify comments and ideas. A concise draft summary of the main findings will be sent to each school.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to it. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The benefits of participants being involved in this study is that they will positively contribute to knowledge about online teaching and learning by offering their input and knowledge. Their voices will assist the researcher in concluding the study. Participation in the study will also assist the researcher in reaching the study's purpose and objectives.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

There are no foreseeable negative inconveniences except the time to be taken participating in this study. The study does not require sensitive information and does not involve people under the age of 18 years. The information obtained from the participants regarding online teaching and learning is believed to pose a low risk.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

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 study**.** Your name will not be recorded anywhere and no one will be able to connect you to the answers you give. Your answers will be given a code number or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings*.*

Only the researcher and supervisor will have access to the data, and will also sign a confidentiality agreement.

Participants' anonymous data may be used for other purposes, such as a research report, journal articles and/or conference proceedings. *The study report may be submitted for publication, but individual participants will not be identifiable in such a report.*

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing cabinet in my house for future research or academic purposes. Electronic information will be stored in a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. In case of the need to destroy information *(e.g. hard copies will be shredded and/or electronic copies will be permanently deleted from the hard drive of the computer through the use of a relevant software programme)*.

WILL I RECEIVE PAYMENT OR ANY INCENTIVE FOR PARTICIPATING IN THIS STUDY?

There will be no payment or reward offered for participating in the study.

HAS THE STUDY RECEIVED ETHICS APPROVAL

This study has received written approval from the Research Ethics Review Committee of the college of education, Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE STUDY?

If you would like to be informed of the final research findings, please contact Mokgatlhe Phenyo Charlotte on 078 3815 987 or email phenyomokgatlhe@yahoo.com. The findings are accessible for 5 years.

Should you require any further information or want to contact the researcher about any aspect of this study, please contact on 078 3815 987, email phenyomokgatlhe@yahoo.com.

Should you have concerns about the way in which the research has been conducted, you may contact: Dr. T.A. Ogina, contact number: +254 719 288098, email address: oginateresa8@gmail.com, fax no: ……..

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.

Mokgatlhe

Mokgatlhe Phenyo Charlotte

APPENDIX H: INTERVIEW QUESTIONS

Interview questions – TVET College Lecturers

Research questions	Interview questions
Biographical questions	• Tell me about yourself – (age, when you start working in the college etc). • What position do you hold in this college? • What is your highest qualification? What do you teach at this college?
1. What are the perspectives of lecturers at Ekurhuleni TVET college regarding their readiness to implement online teaching and learning?	• What is your view about the use of technology in teaching and learning? • What is your opinion about online teaching and learning? • What can you say about your readiness to use online teaching and learning on this campus? How can you describe readiness in implementing online teaching and learning?
2. What challenges do lecturers at Ekurhuleni TVET college experience regarding online teaching and learning?	• What are some of the challenges that college lecturers experience that may cause delay in implementing online learning? • From your experience, what are the factors that are hindering the use of online teaching and learning?

	What is the influence of online teaching and learning in your subject?
3. How do the lecturers at Ekurhuleni TVET college address the challenges they experience in online teaching and learning?	• Please tell me, how do you deal with the challenges that you have mentioned? If you have to recommend solutions that will ensure readiness to implement online learning in this campus, what would they be?
4. What support can be provided to lecturers at Ekurhuleni TVET College to successfully implement online teaching and learning?	• What internal support do you need to be able to successfully implement online teaching and learning? What external support do you need to be able to successfully implement online teaching and learning?
	Is there anything else that you would like to tell me about online teaching and learning at your campus?

APPENDIX I: LANGUAGE EDITING CERTIFICATE

Stand 507 Caledon Village, Cell +27794848449, Email: kubayijoe@gmail.com

10 June 2024

Dear Sir/Madam

SUBJECT: EDITING OF DISSERTATION

This is to certify that the dissertation entitled 'Lecturers' perspectives on the readiness to implement online teaching and learning at Ekurhuleni TVET College' by Phenyo Charlotte Mokgatlhe has been copy-edited, and that unless further tampered with, I am satisfied with the quality of the dissertation in terms of its adherence to editorial principles of consistency, cohesion, clarity of thought and precision.

Kind regards

Mafumisi Group