

**TEACHING AND LEARNING IN THE TIME OF COVID-19: THE
EXPERIENCES OF LECTURERS AND STUDENTS AT A TVET
COLLEGE IN GAUTENG, SOUTH AFRICA**

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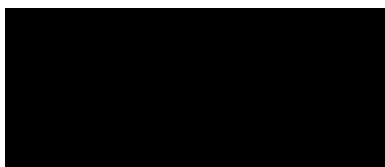
**A Thesis submitted in fulfilment of the academic requirements for the degree of Masters in
Education**

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DECLARATION

I, Lekgale Violet Matjila, declare that:

- i. The research reported in this thesis, except where otherwise indicated, is my original research.
- ii. This thesis has not been submitted for any degree or examination at any other university.
- iii. This thesis/ dissertation does not contain other person's data, pictures, graphs, or other information unless specifically acknowledged as being sourced from other persons.
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STATEMENT BY SUPERVISOR

This thesis is submitted with my approval.

Supervisor: Dr Ndumiso Daluxolo Ngidi

ABSTRACT

Within the context of teaching and learning during the height of the global COVID-19 pandemic and the ‘hard’ lockdown instituted to curb the spread of the virus, this study critically examines the experiences of lecturers and students at a TVET College in Gauteng, South Africa. The study focuses on a resource-restricted TVET College that predominantly enrolls black students from township communities marked by entrenched poverty, limited service delivery, and infrastructural neglect. A qualitative research design was employed, involving 27 purposively sampled participants (12 lecturers and 15 students). Data was collected through one-on-one interviews and focus group discussions and analysed using thematic analysis. The analysis was framed within the Protection Motivation Theory (PMT), which provided a framework for understanding the teaching and learning experiences of TVET College lecturers and students during the challenging lockdown period of COVID-19. PMT proved valuable in elucidating why students and staff had specific experiences during the pandemic. The findings reveal that both students and lecturers experienced significant levels of uncertainty and a sense of unpreparedness for the adjustments required during the ‘hard lockdown’ period. Participants expressed discomfort with abandoning traditional teaching and learning methods in favour of virtual modes. Additionally, they highlighted the lack of technological resources at the College and their homes, which hindered their ability to work and study effectively. This study offers a critical perspective on how a global health pandemic impacts teaching and learning in resource-limited institutions of higher learning, using the COVID-19 pandemic as a focal point.

DEDICATION

To my beloved brother, David “Dirr” Dibate Thobejane, who is now resting with the Lord. You worked tirelessly to put me through school, only to be taken away from us before I could graduate with my junior degree. This research is dedicated to you, my brother, who became a father to the child you never bore. From a young age, you encouraged, supported, and motivated me to pursue an education, both financially and emotionally. Malome, this is for you. To his beloved wife, Yvonia, thank you for allowing him to support my studies. To my mother, thank you for being our rock. Without formal education yourself, you moved mountains to ensure we received an education. Thank you, Modipadi.

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“In all the work you are doing, work the best you can. Work as if you were working for the Lord, not for men” (Holy Bible. Colossians 3:23).

My motto in life is ***“work as if God himself is your supervisor”***.

- I would like to thank God Almighty for strengthening me for this journey while He took care of all my needs according to His riches in glory by Christ Jesus. Thank you, Father, for the Angels, you brought in my life to strengthen and comfort me throughout all the hardships I encountered during my period of study.
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LIST OF ACRONYMS AND ABBREVIATIONS

4IR	Fourth Industrial Revolution
BB	Blackboard
COVID-19	Corona Virus Disease 2019
DDG	Deputy Director General
DHET	Department of Higher Education and Training
EMM	Ekurhuleni Metro Municipality
FEC	Far Ekurhuleni College
FET	Further Education and Training
FGD	Focus Group Discussion
GP	Gauteng Province
HEIs	Higher Education Institutions
HRDC	Human Resource Development Council
HSRC	Human Sciences Research Council
ICT	Information and Communications Technology
IDI	In-depth Interviews
ILO	International Labour Organization
NCV	National Certificate Vocational
NSFAS	National Student Financial Aid Scheme
PMT	Protection Motivation Theory
UK	United Kingdom
UKZN	University of KwaZulu-Natal
UNESCO	United Nations Educational, Scientific and Cultural Organization.
USA	United States of America

R191	Report 191
SSI	Semi-Structured Interviews
SMT	Senior Management Team
STATSA	Statistics South Africa
TLPF	Teaching and Learning Policies and Frameworks
TVET	Technical Vocational Education and Training
WHO	World Health Organization

CHAPTER ONE

AN INTRODUCTION TO THE STUDY

1.1.Introduction

The novel Corona Virus Disease 2019 (COVID-19) is a respiratory virus that was first recognised in 2019 in the Chinese Province of Wuhan. In March 2020, South Africa reported its first COVID-19 case, creating nationwide fear. In response to the rapid spread of the virus, South African President, Cyril Ramaphosa, declared a state of disaster, under which a national lockdown was instituted. The national lockdown saw the suspension of all services, except those that were deemed essential such as healthcare, policing and agricultural-related activities, as a first response to curb the spread of the virus. Within the context of education, the lockdown period also introduced a change in the traditional ways in which teaching and learning were conducted, including a suspension of in-class (physical) modes of teaching and learning.

Arguably, COVID-19 emphasised the significance of integrating educational technologies and digital tools in education. Moreover, it exposed how countries in the Global South, including those in the African continent, still lag far behind in terms of providing education through digital mediums. South Africa is no exception (Mhlanga & Moloji, 2020). While the country is economically comparatively stronger than its regional counterparts, because of enduring socioeconomic inequalities in education, several institutions of learning, including Technical Vocational Education and Training (TVET) Colleges, struggled to transition into digitised systems of teaching and learning during the national lockdown.

In essence, the global COVID-19 pandemic altered the nature and scope within which teaching and learning outcomes were met. It pushed both educators and students to adapt to modern educational technologies that relied mainly on online systems. However, while this shift presented some opportunities (such as the integration of internet-based education) for the higher education sector, it also presented several challenges that hindered learning outcomes (Dube, 2020). Notably, the shift reinforced conversations around integrating educational technologies through online learning. I discuss these issues at length in Chapter Two, which is a review of existing literature.

Education stakeholders stepped up and engaged in this dynamic change by providing access to different educational technologies (Dhawan,2020). For example, they invested in media-based technologies to facilitate learning and strengthened available resources such as computers, internet access, and other online platforms (Hoftizer et al., 2020). However, with a noticeable trend of socioeconomic inequality amongst different areas in the country, resource-poor and marginalised communities faced more significant challenges (Dube, 2020). In the study presented in this dissertation, I focused on the teaching and learning experiences within the TVET College sector during the COVID-19 period in South Africa. In particular, I examined the teaching and learning experiences of TVET College lecturers and students during the period of the so-called ‘hard lockdown.’¹ that was instituted in response to the rapid spread of COVID-19 (South African Government, 2023).

The study was mainly driven by the changes I observed as a Senior Campus Manager in one TVET College in the Gauteng Province (GP) of South Africa. I noted a dramatic shift that impaired the campus’ teaching and learning processes. Specifically, there was a shift from the physical so-called ‘face-to-face’ contact mode of teaching and learning toward the adoption of remote-based online teaching and learning. My interest was thus to understand the teaching and learning experiences of both the lecturers and students during this period. Moreover, my interest was also triggered by how the TVET College’s senior management teams (SMT) responded to the pandemic. Teaching and learning policies became outdated, and the SMT had to rapidly amend the Teaching and Learning Policies and Frameworks (TLPF) guiding TVET College teaching and learning. Moreover, several students and lecturers that I interacted with during this period shared their frustrations, including the difficulties they faced with adjusting to this so-called ‘new normal’ initiated by growing responses to the outbreak of the COVID-19 pandemic.

As I recall, several TVET College students dropped out of their studies, with some lecturers falling ill and others succumbing to the virus. As a result, the TVET College I worked for was left with several lecturer vacancies. Some of our students also suffered the repercussions of

¹ At the height of the COVID-19 pandemic, South Africa introduced a five-level alert system to manage the spread of the virus. This risk-adjusted approach was guided by several criteria, including the level of risk of infection, the rate of transmission, the capacity of healthcare facilities, and the socioeconomic impact. Alert level 1 indicated a low COVID-19 spread with a high health system readiness, while alert level 5 indicated a high COVID-19 spread with low health system readiness. It was due to the latter alert level that the hard lockdown was instituted from the 26th of March 2020 to 18 August 2020.

COVID-19, including mental health issues (Son et al., 2020). Indeed, because of the extended scope of work, some lecturers experienced fatigue as they had to carry over the subjects of their deceased colleagues (Misra et al., 2022). Thus, in the period between the announcement of the country's state of disaster and the time of conducting research towards this dissertation, both students and academic staff had undergone several COVID-19-related experiences that merit a scientific inquiry to understand fully.

I relate my experiences here as a Campus Manager of a TVET College to illustrate how COVID-19 brought many dramatic changes in the sociocultural landscape and the experience of life at the campus. Furthermore, I wish to show that not enough scholarly attention has been paid to engaging the voices of lecturers and students from TVET Colleges to understand how they experienced teaching and learning at the time of the heightened COVID-19 state of national alert. Thus, in the context of teaching and learning during the time of COVID-19, the study reported in this dissertation examined the teaching and learning experiences of lecturers and students at one TVET College in Gauteng, South Africa.

1.2 The Rationale for the Study

The motivation for this study has been partially detailed above. However, it warrants repetition in this section. The focus of this study was one TVET College in Gauteng, South Africa. The motivation for pursuing a study of this nature emerged from my experiences as a Senior Campus Manager at a TVET College in Gauteng. As noted in the section above, there was a shift from face-to-face modes of contact teaching and learning towards the adoption of a more remote online teaching and learning medium. My interest as a Master's candidate was to debunk myths and understand the experiences of both lecturers and students during the time of the heightened COVID-19 pandemic alert.

In preparation for writing this dissertation, I engaged several studies published between 2020 and 2023 on the impact of COVID-19 on the teaching and learning processes of the South African higher education sector. Indeed, during the research period, not enough published scholarship was available to help the higher education sector understand how COVID-19 brought about challenges and opportunities in terms of teaching and learning. Moreover, my search of the literature yielded no studies that paid particular attention to the experiences of lecturers and students from the TVET College sector. It is within this context that this study was conceptualised. My end goal is to contribute meaningfully towards understanding the

teaching and learning experiences brought about by the COVID-19 global pandemic on TVET Colleges in South Africa.

TVET Colleges are institutions of higher education that specialise in vocational and occupational education and training programs. These colleges are designed to equip students with critical skills and practical experiences that present them with employment opportunities. Established through a merger of former technical education training centres, TVET Colleges emerged as a response to the promotion of access to the labour market, increasing labour productivity, and improving the country's competitiveness (HRDC,2013., DHET, 2020). As conduits for employability and entry into the labour market, TVET Colleges are thus vital institutions in the country's development agenda (HRDC, 2014; Akoojee, 2016).

During the COVID-19 lockdown, teaching and learning in the higher education institutions of South Africa shifted from the traditional face-to-face contact modes to remote teaching and learning (Pokhrel & Chhetri, 2020). These changes were adopted to curb the spread and impact of the COVID-19 pandemic. Moreover, during this period, TVET Colleges suspended physical modes of teaching and learning for three months. The use of social and broadcast media platforms was adopted as a measure to deliver teaching and learning. For instance, some modes of teaching and learning included the use of WhatsApp, teaching over radio stations, and the implementation of platooning timetables which scheduled lessons in two different sessions alternating between the morning and afternoon. The College I worked for at the time opted and settled for implementing these measures due to limited resources and amenities for facilitating teaching and learning processes (see, also, UNESCO, 2020). Given the disruptions brought by the COVID-19 pandemic, it was vital for me to engage those who were direct TVET College stakeholders (i.e., students and lecturers) to understand the impact of this pandemic from their perspectives.

1.3.Statement of the Problem

The COVID-19 outbreak at the TVET College I worked for in Gauteng demonstrated vulnerabilities in teaching and learning (Sokhulu, 2020). After a careful review of the literature, I discovered that scholarship about the outbreak of the COVID-19 pandemic had not explored the teaching and learning experiences of lecturers and students during the 'hard lockdown' period in and around South African TVET Colleges. Other higher education institutions in South Africa managed to shift teaching and learning from face-to-face modes of contact to

online teaching and learning methods seamlessly (Mpungose, 2020). However, it was different with TVET Colleges (Masina, 2022). As a result, teaching and learning practices in TVET Colleges were abruptly disrupted (HSRC, 2021).

The daily lives and living plans of students and lecturers across institutions of higher education were, in many ways, altered by the COVID-19 pandemic (Comyn, 2022). Lecturers and students are, therefore, significant for this study. However, the experiences of TVET College lecturers and students during the peak of the COVID-19 pandemic in TVET Colleges are not well understood since empirical studies on this topic remain few and far between. Several published studies relating to the COVID-19 pandemic have also had a unidimensional focus on the challenges of COVID-19 from a public health perspective (see, for example, Ness et al., 2021). However, as Daniel (2020) argues, COVID-19 has been a severe problem for the education sector and suggests that everyday classroom teaching should put the pandemic within a historical context. In addition to studies that focus on the higher education sector during the height of COVID-19, the purpose of this study was to examine the experiences of lecturers and students regarding teaching and learning at one TVET College in South Africa.

1.4. Study Aim and Research Questions

The study reported in this dissertation examined the teaching and learning experiences of TVET College lecturers and students during the height of the COVID-19 national lockdown. To pursue the aim outlined above, the following two research questions guided data gathering and analysis in the study:

1. How do TVET College lecturers and students describe their teaching and learning experiences during the height of the COVID-19 national lockdown?
2. What teaching and learning-related challenges and opportunities did TVET College lecturers and students encounter during the height of the COVID-19 national lockdown?

These research questions were designed to zoom in and explore the specific teaching and learning experiences of lecturers and students at one TVET College in Gauteng with the view of understanding how the global COVID-19 pandemic shaped these experiences.

1.5.Overview of the Theoretical Framework

Data analysis in this study was informed by the Protection Motivation Theory, which is an interaction framework that is resourceful for analysing teaching and learning experiences across various periods of health-related pandemics (Plontikoff et al., 2010). Ronald Rogers (1975) developed this theory to understand better how individuals respond in terms of health and safety to potential threats. Thus, Rogers (1975) proposed that individual and environmental factors can either encourage or discourage people from engaging in protective behaviours and that individual cognitive processes mediate the effects of such behaviours. These cognitive processes distinguish themselves from what may be anticipated as a direct relationship between emotional fear and protective responses (Clubb & Hinkle, 2015). Rogers' theory has helped explain protective behaviours that individuals use during health-related emergencies. In this study, this theory's relevance to teaching and learning is reflected in considerable alignment to consistently implement protective measures against the COVID-19 pandemic (Mukuna, 2020). In Chapter Three, I provide a detailed discussion of the theoretical framework.

1.6.Overview of the Methodological Approach

As outlined above, the study reported in this dissertation addressed two research questions. To address both questions, I located the research with the interpretive paradigm (which is discussed in more detail in Chapter Four), which is an approach in social science research that emphasises individuals' beliefs, motivations, and reasoning in social situations as essential for decoding the meaning around a particular phenomenon (Nickerson, 2022). Informed by the interpretive paradigm, the study adopted a qualitative research design that acknowledged TVET College lecturers and students as essential conduits for the construction of knowledge. I adopted a qualitative research approach because of its resourcefulness in helping me gain broad insights into the teaching and learning experiences of TVET College students and lecturers during the height of the global COVID-19 pandemic (Bless & Higson-Smith, 2000).

The study setting was a TVET College in Gauteng, South Africa, which, because of its location in a province that was considered the country's epicentre of COVID-19 infections, presented a generative context for examining the teaching and learning experiences of lecturers and students. During the hard lockdown, for example, the Gauteng province presented the highest rate of COVID-19 infections and related deaths compared to all other South African provinces

(Child, 2020). As I mentioned above, the TVET College I worked for was negatively affected by the pandemic, leading to several students dropping out, whilst some lecturers succumbed to the virus. A total of 27 male and female lecturers (n=12) and students (n=15) were purposively selected to participate in the study. Data was gathered through one-on-one in-depth interviews and focus group discussions (FGD). Both interviews and FGD were conducted primarily in English (even though some of the participants switched to their home languages from time to time²), recorded using a digital recorder and later transcribed verbatim.

The data gathered using these tools were analysed using thematic analysis. Since thematic analysis focuses on identifying themes and patterns in the data, analysis in this study involved the interpretation of open-ended responses from the participants. According to Braun and Clarke (2006), who are pioneers of thematic analysis, this approach identifies, analyses and reports patterns or themes that emerge from the data. Therefore, I deliberately searched for themes that emerged as being essential to address the study's research questions. The process of analysing data thematically in this study involved identifying themes through careful reading and re-reading of the transcripts from the interviews and FGD with the participants. A detailed discussion of the research design and methodology is presented in Chapter Four.

1.7. Ethical Considerations

Any social science research that involves human participants presents a set of ethical issues and challenges. To mitigate these issues, I followed several steps. First, I received written permission to conduct the research from relevant institutions, including the University of KwaZulu-Natal's (UKZN) Humanities Research Ethics Committee (Protocol number: HSSREC/00005057/2022). Additionally, permission to conduct research in the TVET College was obtained from the Principal of the College. Second, the participants provided written consent for their participation. In Chapter Four, I provide a detailed discussion of how relevant ethical concerns were attended to.

² I am fluent in several South African languages and this made it easy to understand and hold conversations with participants who switched into their home languages during the data generation processes.

1.8.Synthesis and Overview of the Dissertation

This study examined the teaching and learning experiences of TVET College students and lectures during the height of the global COVID-19 pandemic. In particular, the study explored these experiences within the context of the so-called ‘hard lockdown’ that was instituted nationally to curb the spread and impact of the pandemic. The dissertation is organised into seven chapters. In this chapter, I have introduced the study by outlining its rationale, background and context. Notably, the chapter outlined the aim of the study as well as the research questions that informed data gathering and analysis.

Chapter Two reviews existing literature on the impact of the global COVID-19 pandemic on higher education, focusing on the experiences of TVET Colleges in South Africa. The chapter provides a critical discussion of the literature, identifies gaps, and suggests directions for future research. First, it explores the global and South African contexts of higher education during the pandemic, and second, it examines the specific challenges faced by TVET Colleges during the height of the COVID-19 global pandemic. Finally, it provides a critical discussion highlighting methodological and theoretical strengths, weaknesses, and gaps in the literature. The chapter closes with a conceptual framework describing the impact of COVID-19 on South Africa’s TVET Colleges.

Chapter Three outlines the theoretical underpinnings of the study. First, the chapter locates the study within Ronald Rogers’ (1975) Protection Motivation Theory, outlining the theory’s relevance for analysing teaching and learning experiences during the height of the COVID-19 outbreak in a TVET College. Second, the chapter outlines the components of this theory within which this study is located and shows why Roger’s ideas are relevant to the study reported in this dissertation. Finally, the chapter concludes with a set of propositions that guided data analysis in this study.

Chapter Four provides the research design and methodology used in the study. First, the chapter outlines the research paradigm used to guide the methodology adopted for generating data. This is followed by an outline of the research design, the location of the study, the qualitative approach that was applied in this study, and how access to the TVET College which was the focus of this study was gained. Sections that detail the study’s sampling and participant recruitment procedures precede a section on data generation processes and data analysis. The

chapter concludes with a discussion about the trustworthiness of the study and the ethical considerations that informed the study.

Chapter Five presents findings that address the two research questions posed in this study. First, the chapter discusses how the participants adjusted to engaging in teaching and learning activities at home given the strict lockdown restrictions that limited physical contact on campus. Second, and tied to the first theme, the chapter discusses how students perceived learning from home as a negative and disruptive endeavour. Third, the chapter presents findings on the lecturers' perspectives of students who were 'forced' to learn from home. Fourthly, the discussion centres on the participants' experiences with using digital online modes of teaching and learning. In particular, the discussion examines how both lecturers and students found the use of WhatsApp (a social media application) limiting for teaching and learning. Finally, the chapter discusses the complexities of emergency blended teaching and learning during the COVID-19 lockdown, focusing on three particular elements that the participants cited as challenging: a) timetable changes, b) rotational learning, and c) a rushed syllabus. The chapter concludes with a critical discussion of the findings.

Chapter Six concludes the dissertation by reflecting on both the methodology and theoretical framework of the study. The chapter further provides a critical summary of key findings. Finally, the chapter reflects on the study's contributions, including methodological contributions and discusses implications for research and practice.

The next chapter presents a review of extant literature on the impact of COVID-19 on higher education.

CHAPTER TWO

A REVIEW OF LITERATURE

2.1 Introduction

On the 11th of March 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic, prompting countries worldwide to implement a variety of measures to curb the spread of the virus and mitigate its impact on the public health system and national economies across the globe (WHO, 2020; Cucinotta & Vanelli, 2020; Al-Mandhari et al., 2020; Onyeaka et al., 2021). These measures included nationwide lockdowns, mask mandates, and enforced physical and social distancing. Despite these efforts, by the end of 2020, the pandemic had affected hundreds of millions globally and caused millions of deaths (Sawicka et al., 2022). In South Africa, the first case of COVID-19 was reported on the 5th of March 2020, triggering nationwide fear and tension (Staunton et al., 2020). To prevent a potential ‘human catastrophe of enormous proportions,’ as President Cyril Ramaphosa described it, a 21-day lockdown was announced on the 23rd of March 2020 (Lukani, 2020). This lockdown included the indefinite closure of higher education institutions, significantly impacting the teaching and learning processes, particularly in Technical and Vocational Education and Training (TVET) Colleges that rely heavily on face-to-face instruction (Masina and Mawonadzo, 2022). While the country was hailed, at the time, as a global leader in terms of its stringent response to the threat of COVID-19, nonetheless, within a short period, the virus infected millions of South Africans, and hundreds of thousands succumbed to the disease (Suliman and Mtsweni, 2022). This chapter provides a comprehensive review of the existing literature on the impact of the COVID-19 pandemic on higher education, with a particular focus on the experiences of TVET Colleges in South Africa. It aims to offer a critical analysis of the literature, identify existing gaps, and propose avenues for future research. The chapter is organised as follows: first, it contextualises the global and South African higher education landscapes during the pandemic; second, it examines the unique challenges encountered by TVET Colleges at the height of the COVID-19 crisis; and lastly, it delivers a critical evaluation of the methodological and theoretical strengths, weaknesses, and gaps present in the literature. The chapter concludes by proposing a conceptual framework that encapsulates the pandemic's impact on South Africa's TVET Colleges.

2.2 Higher Education in the Context of the COVID-19 Pandemic

Education is recognised as a fundamental human right and a primary goal in the 2030 Agenda for Sustainable Development (United Nations, 2020). The COVID-19 pandemic caused unprecedented disruptions in educational systems worldwide, surpassing the impacts of previous pandemics (Wang & Sun, 2022). By the 1st of April 2020, around 185 countries had shut down their educational institutions, affecting over 1.5 billion students globally (UNESCO, 2020). For instance, in India, institutions of higher education shut down during the pandemic tripling the dropout rate from 1.8% in 2018 to 5.3% in 2020, disproportionately affecting marginalised communities and exacerbating existing inequalities (Sinha, 2023).

In Australia, the pandemic-induced shutdown in higher education heightened anxiety levels due to labour market uncertainties, especially for final-year students, worsening the economic crisis and family incomes (Gomez-Garcia et al., 2022). Brazil, one of the countries most affected by COVID-19, faced significant educational challenges, with students experiencing a lack of motivation, concentration difficulties, and heightened anxiety (da Silva Prado et al., 2023). In the UK, the pandemic's impact on higher education was profound, necessitating a rapid transition to online learning, which disrupted projects, dissertations, and assessments (Barnard & Syed, 2020). In the USA, the shutdown had a direct financial impact on students, with many losing jobs or experiencing reduced work hours, significantly affecting their economic stability (Hamlin & Barney, 2022).

Countries responded to the pandemic with various measures, including banning public gatherings, closing workplaces, and transitioning to online education (Aristovnik et al., 2020). These measures included full or partial closures of educational institutions, mandatory quarantines, and stay-at-home orders (Guner, Hasanoglu, & Aktas, 2020). The success of these non-pharmacological interventions heavily relied on individual compliance with stay-at-home orders, social distancing, and mask-wearing (Rajan et al., 2022). Initially, the World Health Organization (WHO) and many governments believed masks had limited benefits (WHO, 2020; Howard, 2020). However, some countries, like Belgium, Czechia, and Poland, encouraged mask use early on, distributing masks or promoting homemade cloth masks (Haug et al., 2020).

The tertiary education sector faced substantial challenges in establishing and maintaining effective online education systems during the shutdown (Saha, Haq, & Ahmed, 2023). Students

from marginalised and disadvantaged contexts were disproportionately affected compared to their more affluent counterparts, who benefited from better-resourced neighbourhoods and schools with superior digital infrastructure and digitally literate educators (Tadesse & Muluye, 2020). Conversely, students from resource-poor contexts faced significant challenges in using library resources and instructional materials, as well as in their home learning environments (Buehler, 2004). Different levels of preparedness and experiences in applying online resources resulted in varying outcomes for students and academics during the transition to online education (Mestry, 2023). Academics needed to be sensitive to students' difficulties in acquiring necessary technological devices and internet access due to low socio-economic status (Mestry, 2023).

The shift to online learning was a necessary response to maintain educational continuity (Stanvoska et al., 2022; Kumar et al., 2021). However, this transition posed significant challenges, particularly for disciplines requiring practical, hands-on instruction (Marinoni et al., 2020). Developed countries with advanced economies, like the Czech Republic, quickly developed new or modified laboratories suitable for online and distance learning, such as Home Labs (Svatos et al., 2022). In Africa, although less affected by COVID-19 compared to other continents, the pandemic led to high rates of university closures (UNESCO, 2021). According to UNESCO (2021), at least 60% of African students lacked the means or tools to access online education during the pandemic, with only 29% of African higher education institutions able to quickly transition to online teaching, compared to 85% in Europe (Koninckyx, 2021).

In South Africa, higher education institutions, including TVET Colleges, faced abrupt shutdowns (Mncube et al., 2021). The Minister of Higher Education, Science, and Technology emphasised the necessity of completing the 2020 academic year, necessitating a rapid shift to online learning (Nzimande, 2020). This transition was particularly challenging due to the lack of infrastructure and preparedness for remote learning (HSRC, 2021). The Department of Higher Education and Training (DHET) outlined a plan to support remote learning using various tools, including textbook-based learning, radio and television broadcasts, zero-rated websites, and college-based learner management systems (Mapulane, 2020). However, the government had failed to make meaningful investments in ICT infrastructure before the pandemic (Ndevu, 2020). High data costs and weak ICT infrastructure in poorer areas excluded many from engaging in e-learning (Innovation Edge, 2022). South Africa's wide digital divide, caused by privatisation and poor state regulation of ICT, resulted in poor or no internet access

and inadequate cell phone communication for most citizens (Ndevu, 2020). For example, only 11.7% of schools nationally offered remote learning options, highlighting the disparity in technological access (Stats SA, 2022).

While higher education institutions in South Africa welcomed the shift to online learning, significant challenges included inadequate infrastructure for facilitating online teaching and learning, unequal access to laptops and internet facilities, and difficulties in teaching practical course content (Mncube, Mutongoza & Olawale, 2021). The lack of practical online demonstrations and the financial inability of students to purchase specialised equipment for experiential learning became evident (Moodley, 2022). To mitigate these challenges, by the 1st of June, under Alert Level Three, up to 33% of students, particularly those in clinical programs and postgraduate students requiring laboratory access, were allowed to return to campuses (Son et al., 2021). By August 17, 2020, Alert Level Two allowed some higher education institutions to welcome back 66% of their students (Son et al., 2021). Despite these efforts, less than 40% of TVET College students received full online lessons during the first lockdown, highlighting significant disparities in access to education (HSRC, 2021; Phejane, 2021).

2.3 Teaching and Learning Challenges

The shift to online learning exposed numerous challenges, particularly for TVET Colleges where practical skills training is essential (ILO, 2021; UNESCO, 2021; World Bank, 2021). Financial constraints prevented institutions from providing necessary resources like computers and data to students, and sometimes to educators (Ojo et al., 2020). Additionally, there was little support for academic staff and students to adapt to online teaching methods (Magingxa, 2020). In the following sub-sections, I discuss several challenges related to the COVID-19 pandemic in higher education.

2.3.1 Lack of Personal Interaction

One major challenge reported in the literature was the lack of personal interaction between lecturers and students: a crucial element for effective teaching and learning (Jones & Kessler, 2020). During the period of the heightened spread of COVID-19, online learning platforms failed on several occasions to replicate the social dynamics of classroom environments, leading to feelings of isolation and decreased motivation among students (Azmat & Ahmad, 2022). For

example, Salvador et al. (2022) quantitative study that applied the Plutchik model used a questionnaire to understand the impact of COVID-19 on the emotional state of students in one Spanish university. Many of the students in the study reported a sense of isolation and a lack of personal connection with academic staff. The author suggested the need for ongoing virtual connections and communications between students and academics to lessen the emotional burden of isolation among students.

In another study, Son et al., (2020) examined the perceived connection between students and their lecturers during the lockdown. The scholars found that students felt less connected with fellow students and lecturers when interacting via online platforms; suggesting for example, that their homes were disruptive to learning endeavours. In Elmer et al's (2020) investigation of social interactions and social support for Swiss students, the authors found that on average students were more depressed, slightly more anxious, more stressed and felt lonelier than half a year earlier. These studies point to a sense of emotional isolation and disconnect that students experienced during the lockdowns.

2.3.2 Technical and Resource Barriers

Technical issues, such as poor internet connectivity and lack of access to digital devices, significantly hindered the effectiveness of online learning (Mahyoob, 2020). Students in rural areas faced pronounced difficulties in accessing online classes and resources during the COVID-19 lockdowns (Mseleku, 2020). For instance, a cross-sectional study involving 625 students at a Jordanian university highlighted that technical and infrastructural challenges were substantial barriers for medical education students during the pandemic (Al-Balas et al., 2020). In a study examining the perspectives of teachers at a Beijing university, Wen (2023) reported that technological challenges had a considerable negative impact on online teaching. The study found that 70% of interviewed teachers struggled with unfamiliarity and selection of educational platforms and software. Many lacked essential tools for effective virtual teaching, and software challenges were exacerbated by insufficient technical support due to the abrupt transition to online education. Furthermore, connectivity issues severely restricted access to students, particularly those with inadequate internet infrastructure. Similarly, a qualitative study by Ozudogru (2021) at a Turkish university revealed that pre-service teachers encountered significant technical barriers, including limited access to online learning applications and internet connectivity. The study concluded that while distance education has

long faced challenges, the COVID-19 pandemic highlighted specific issues, necessitating measures to mitigate such problems in future emergencies.

2.3.3 Pedagogical Challenges

The abrupt transition to online education mid-semester left both instructors and students unprepared (Ortiz, 2020). The development and delivery of online coursework demanded new skills and tools that many educators lacked (Rowan & Singh, 2020). Practical subjects, in particular, faced significant difficulties in adapting to online formats due to their reliance on hands-on experience (Patra et al., 2020).

A study conducted at a South African public university involved eleven researchers sharing narratives about the preparedness and responsiveness of higher education institutions (HEIs) during the pandemic (Du Plessis et al., 2022). The study found that lab-based research and clinical training could not easily transition online. Lecturers often struggled with the protocols of online meetings, leading to disengagement. The study concluded that historical disparities in technology and skills between universities necessitate significant investment to bridge the divide. Yandell (2020) explored the challenges of teaching English online at a UK university. The study highlighted significant disparities in students' access to technology and conducive study environments. While some enjoyed reliable connectivity, others, particularly from disadvantaged backgrounds, faced substantial obstacles. The study emphasized that online learning demands a unique set of pedagogical skills, particularly in technology use, which many educators and students lack.

2.3.4 Equity and Access

The pandemic exacerbated existing inequities in higher education, particularly concerning access to technology and digital resources. Students from low-income backgrounds and rural areas faced significant barriers to online learning (Mseleku, 2020; Farooqui, 2020; Ojo et al., 2020). This section examines the impact of these disparities on educational outcomes and institutional strategies to mitigate these challenges, such as distributing digital devices, providing internet subsidies, and implementing zero-rated educational websites.

The International Labour Organization (ILO) and World Bank (2021) reported that pre-existing social and digital divides left marginalized groups at risk of falling behind. Zhu and Liu (2020) found that students from poor regions in China struggled significantly with digital learning, highlighting that quality education involves not only academic outcomes but also the social and emotional development of students. Farooqui (2020) argued that while technology can enable education, it also poses limitations, especially in regions with basic access challenges. Students without computers or fast internet faced issues with attendance and participation. Similarly, Adedoyin and Soykan (2020) and Fishbane and Tomer (2020) found that poor internet connectivity disproportionately affected students from lower socio-economic backgrounds, exacerbating educational inequalities.

2.3.5 Mental Health and Well-being

The sudden shift to remote learning and associated isolation had profound effects on the mental health and well-being of students and staff. Research indicated increased levels of stress, anxiety, and depression within the academic community (Jones & Kessler, 2020). This section explores the psychological impact of the pandemic, the availability and effectiveness of mental health support services, and the role of institutional policies in promoting well-being.

Wen (2023) reported that the psychological challenges faced by students and teachers were often linked to engagement and interaction difficulties in the online environment. The study, conducted at a Chinese university, found that the lack of face-to-face communication and ineffective online interactions heightened stress and anxiety. Students' low participation further exacerbated teachers' frustration and anxiety, with some students even experiencing suicidal thoughts due to fear of academic failure. Patwary et al. (2022) argued that academic disruptions, increased burdens from virtual classes, and career uncertainties contributed to heightened anxiety among students. The rapid increase in daily suspected COVID-19 cases, lack of medical supplies, and sensational media coverage further aggravated psychological disturbances. Idris et al. (2021) explored the impact of the pandemic on teaching and learning experiences, as well as the physical and mental health of students and lecturers at Brunei University. The findings revealed that increased anxiety led to decreased motivation among students, correlating with concerns about academic, social, and economic well-being. Lecturers experienced stress due to increased workloads and disrupted routines. Mthethwa and Luthuli (2021) found that the rapid transition to online learning negatively affected students' mental

health. Financial anxieties, lack of social interaction, and prolonged screen time contributed to feelings of loneliness and depression. The absence of physical contact with peers and instructors further exacerbated these issues, highlighting the need for supportive measures in future educational disruptions.

2.3.6 Pedagogical Innovations

The transition to online learning necessitated significant pedagogical innovations to maintain student engagement and learning outcomes. This section reviews the innovative teaching methods and tools adopted during the pandemic, such as flipped classrooms, virtual laboratories, and interactive online platforms, evaluating their effectiveness and potential for long-term integration into educational practice.

Idris et al. (2021) argue that online education fosters a collaborative and interactive learning environment, utilizing audio, video, and text to engage students effectively. Ischabek (2020) supports this view, noting that virtual learning can occur anytime and anywhere with internet connectivity. Distance learning materials, including videos, PowerPoint presentations, Word files, and PDFs, facilitate this flexibility. Additionally, social media platforms like WhatsApp proved convenient for disseminating learning materials and were cost-effective for students using data on smartphones.

Mahyoob (2020) emphasizes the global accessibility of education through online platforms, noting that recorded lessons enhance teaching strategies and methods. Dhawan (2020) highlights the scalability of online teaching, enabling lecturers to reach a large audience regardless of location. Mishra et al. (2020) adds that online teaching provided psychological safety for students during the pandemic, allowing them to continue their studies from the safety of their homes. The availability of educational apps like Office 365, Google Classroom, and user-friendly video conferencing tools further facilitated this transition, reducing the risks associated with commuting and potential exposure to the virus.

2.3.7 Institutional Resilience and Adaptability

Institutional resilience emerged as a critical theme in navigating the challenges posed by the pandemic. This section analyses the strategies employed by higher education institutions to

ensure educational continuity, including flexible academic policies, robust IT infrastructure, and adaptive leadership. Case studies of successful transitions illustrate best practices.

Sindiani et al. (2020) found that leading universities in Jordan used platforms like Microsoft Teams, Moodle, and Google Classroom to facilitate remote learning. These tools enabled virtual meetings, material sharing, and continuous lecturer-student communication. Fernandez-Batanero et al. (2022) conducted a global study of 29 universities and identified Zoom and Moodle as primary tools for online education, highlighting their role in enabling effective videoconferencing and material dissemination.

In Saudi Arabia, Mohamed and Alharbi (2021) noted that the government played a significant role in facilitating the transition to online education. The University of Jeddah and other institutions quickly adopted Blackboard (BB) as the primary educational platform, achieving a successful transition within 24 hours. Descriptive statistics showed that 89.4% of participants found BB effective during the pandemic, and 60.6% considered it effective regardless of the pandemic, suggesting potential for continued use in the future.

2.3.8 Policy Responses and Government Support

Government policies and support were crucial in shaping higher education's response to the pandemic. This section examines policy measures implemented to support educational institutions, such as financial aid packages, regulatory adjustments, and public health guidelines, with a critical analysis of their effectiveness and limitations, focusing on South Africa's response.

Hoadley (2023) analysed South Africa's curriculum policy response, noting that the Department of Basic Education made changes to curriculum content and assessment policies to accommodate remote learning. Despite these efforts, the unequal education system deepened existing disparities, as remote solutions were inaccessible to many learners. Mudaly et al. (2021) highlighted the challenges of phased school re-openings, with middle-class students more likely to return than working-class students, exacerbating inequities.

Landa et al. (2021) noted that higher education institutions modified curricula to suit urban learners' contexts, often neglecting rural students. The South African government collaborated with non-governmental entities to provide online and mobile learning platforms, such as the

STEM Lockdown Digital School and zero-rated educational apps. However, Dube (2020) found that South Africa's education system was ill-prepared for such a crisis, with major disparities in learner contexts hindering the delivery of education.

The Minister of Higher Education and Training, Dr. Blade Nzimande, addressed the need to reorganize the academic year, emphasizing the principle of 'no student must be left behind' (Mapulane, 2020). The Deputy Director General (DDG): University Education committed to ensuring all public universities completed the academic year, while the Acting Deputy Director General: TVET outlined various online learning support initiatives to assist students during the lockdown. These findings highlight the importance of adaptive policies and robust support systems to ensure educational continuity and equity in times of crisis.

2.4 Methodological Analysis

The studies reviewed in the chapter applied various methodological approaches to examine the impact of COVID-19 on higher education. They included quantitative surveys, qualitative interviews, and mixed-methods research. Quantitative surveys provided large-scale data on students' and lecturers' experiences, highlighting common challenges and disparities in access to resources (Aristovnik et al., 2020). However, these surveys often lacked depth in exploring individual experiences and the nuanced impacts of the pandemic. Qualitative interviews, on the other hand, offered deeper insights into personal experiences and the specific challenges faced by different stakeholders in higher education (Tenny et al., 2022; Sutton and Austin, 2015). For instance, interviews with TVET College students and staff revealed the difficulties in adapting practical training to online formats and the emotional toll of isolation and uncertainty (Patra et al., 2020). Nonetheless, qualitative studies were limited by smaller sample sizes and the potential for researcher bias (Hennink and Kaiser, 2022; Faber and Fonseca, 2014). Mixed-methods research combined the strengths of both quantitative and qualitative approaches, providing a more comprehensive understanding of the pandemic's impact (George, 2021; Schoonenboom and Johnson, 2017). These studies could contextualise statistical data with personal narratives, offering a richer picture of the challenges and coping strategies employed by educational institutions (Wang & Sun, 2022). Despite these methodological strengths, the reviewed studies also exhibited weaknesses. Many relied on cross-sectional designs, capturing a single point in time rather than tracking changes throughout the pandemic. This approach limited the ability to understand the evolving nature of challenges and responses in higher education. Additionally, there was a scarcity of longitudinal studies that could provide

insights into the long-term effects of the pandemic on educational outcomes and institutional resilience. There was also a notable absence of qualitative work focusing on TVET College within the African Global South region. This is a methodological and scholarly gap that the study reported in this dissertation contributes to.

2.5 Theoretical Analysis

The theoretical frameworks employed in the reviewed studies varied widely, reflecting diverse perspectives on the impact of COVID-19 on education. A common framework was the digital divide theory, which examines disparities in access to technology and internet connectivity (Van Dijk, 2017; Pick, 2016). This theory highlighted how pre-existing inequalities were exacerbated by the pandemic, particularly for students from low-income backgrounds and rural areas (Mseleku, 2020). Another prominent theoretical perspective was resilience theory, which focuses on the capacity of individuals and institutions to adapt to and recover from crises (Garmezy, 1991; Garmezy, 1985; van Breda, 2018). Studies using this framework explored the strategies employed by educational institutions to maintain continuity and support students and staff during the pandemic (Jones & Kessler, 2020). Resilience theory underscored the importance of institutional flexibility, innovative pedagogical approaches, and robust support systems in navigating the challenges posed by COVID-19. However, the reviewed literature also revealed gaps in theoretical application. Few studies integrated critical pedagogical and psychological theories that examine power dynamics, equity, and social justice in education during the pandemic. This oversight limited the understanding of how structural inequalities and systemic barriers influenced the experiences of marginalised groups during the pandemic. Additionally, there was limited exploration of intersectional frameworks that consider the overlapping impacts of race, gender, socio-economic status, and other identities on educational access and outcomes.

2.6 Gaps in the Literature

The review identified several gaps in the literature on the impact of COVID-19 on higher education, particularly in the context of TVET Colleges. First, there is a need for more research to track the long-term effects of the pandemic on educational systems, student outcomes, and institutional resilience. Such studies could provide valuable insights into the sustainability of remote learning and the recovery trajectories of educational institutions. Second, future

research should focus on developing and evaluating innovative pedagogical approaches that can effectively integrate practical skills training into online learning environments. This is particularly crucial for TVET Colleges, where hands-on experience is a core component of the curriculum. Exploring hybrid models that combine online theoretical instruction with safe, socially distanced practical sessions could offer viable solutions. Third, more attention should be given to the socio-economic challenges faced by students and lecturers, particularly those from disadvantaged backgrounds. Research should investigate the effectiveness of various support systems, such as financial aid, mental health services, and community-based resources, in mitigating the impacts of the pandemic. Understanding these dynamics can inform the development of targeted interventions to promote equity and inclusion in higher education. Finally, there is a need for greater theoretical integration in the study of COVID-19's impact on teaching and learning. Employing psychological and motivation-based frameworks can provide a deeper understanding of how structural inequalities shape educational experiences and outcomes. This approach can help identify systemic barriers and inform the design of more equitable and just educational policies and practices. It was within this limit in theoretical framing that my study departed.

2.7 Discussion: Towards a Conceptual Framework

This chapter reviewed the existing literature on the impact of the COVID-19 pandemic on higher education, focusing specifically on the experiences of TVET Colleges in South Africa. It provided a critical analysis of the literature, identified gaps, and suggested directions for future research. The literature review highlighted several methodological and theoretical strengths and weaknesses in the studies reviewed. Methodologically, many studies provided comprehensive data on the global impact of COVID-19 on education, using surveys and statistical analyses to highlight key issues. For instance, Mthethwa & Luthuli (2021) found that the lack of face-to-face social interaction between lecturers and students adversely affected mental health, leading to fatigue from prolonged screen time, feelings of loneliness, and depression. Additionally, financial anxieties and social isolation due to lockdowns negatively impacted student performance. Lecturers, on the other hand, faced increased workloads, which necessitated upgrades in delivery modes and system enhancements to adapt to the rapid growth of online learning platforms (Mthethwa & Luthuli, 2021). Farooqui (2020) revealed that while technology enables learning, it also presents limitations, particularly in regions with inadequate access to basic resources. Many students lacked computers or high-speed internet, leading to

issues with attendance and participation in online sessions. This disparity was further supported by Adedoyin & Soykan (2020), who found that online learning's dependency on technological devices and internet connectivity disproportionately affected students from low socioeconomic backgrounds. The Fourth Industrial Revolution (4IR) necessitates that educational institutions in South Africa enhance their technological infrastructure, introduce new teaching methods, and eliminate barriers to innovation (Damoah & Omodan, 2022). The COVID-19 pandemic exposed significant ICT infrastructural deficits, highlighting the urgent need for equitable internet access and comprehensive ICT training for both teachers and students. This would ensure that no learner or teacher is left behind in the transition to digital education. However, there is a notable lack of qualitative studies tracking the short-term effects of the COVID-19 lockdowns on teaching and learning, particularly in Global South countries and TVET Colleges. While the impact of COVID-19 on teaching and learning is well-documented, there is limited scholarship focusing on TVET Colleges. The developed economies of the Global North, with their advanced technological infrastructure, have successfully integrated online learning, but South Africa lags in this area. This discrepancy underscores the need for more qualitative research to understand the experiences of lecturers and students in TVET Colleges during the pandemic. Theoretically, the transition to online learning has been framed within the context of the digital divide and educational inequality, emphasising the necessity for equitable access to technology (Comyn, 2022). Miah (2024) explored the impact of digital inequality on educational outcomes, finding that students from low-income families and minority groups had less access to digital technologies, leading to lower academic achievement. This study concluded that access to technology alone is insufficient for academic success; the quality of digital resources and the ability to use them effectively are crucial factors. Van de Werfhorst et al. (2022) highlighted the importance of digital skills for effective online education, noting significant digital divides by migration background among students. This is particularly relevant in the Gauteng Province, where economic migrants and students from rural areas were severely affected by the lockdown. Francis and Weller (2022) noted that the digital divide has significant repercussions, depriving students of essential skills for the digital age and potentially leading to long-term educational and economic setbacks. There is also limited exploration of alternative pedagogical approaches that could better accommodate the need for practical skills training in TVET Colleges. The reviewed literature indicated that a lack of pedagogical preparedness, inappropriate curricula, and ineffective online teaching methods were major constraints during the pandemic. Wen (2023) found that assessing knowledge through the Internet was problematic, and many educators believed that online

teaching did not effectively promote cognitive activity and engagement, particularly in practical or lab-based subjects. Significant gaps remain in the literature, especially regarding the specific experiences of TVET Colleges during the pandemic. This study seeks to contribute to this scholarly gap by examining the teaching and learning experiences of lecturers and students at a TVET College during the COVID-19 pandemic. In conclusion, while the rapid shift to online learning during the pandemic presented numerous challenges, it also highlighted the resilience and adaptability of educational institutions. Addressing the identified gaps will be crucial for building more robust and inclusive education systems in the future.

The global COVID-19 pandemic had a profound impact on educational systems across the globe, including TVET Colleges in South Africa. Understanding this impact requires a multifaceted conceptual framework that considers the various dimensions and influences on education during the pandemic. Thus, emerging from the literature reviewed in this chapter is a conceptual framework for understanding the impact of COVID-19 on South African TVET College. Figure 2.1 presents the conceptual framework which guides this study.

First, the conceptual framework highlights the influence of contextual factors on the higher education system during the pandemic. Within this context, the overarching context of the COVID-19 pandemic (including its progression and national-level responses) as a global health crisis significantly impacts education. Likewise, national policy responses play a role in influencing education during the pandemic. For example, the policies and directives the South African government and the DHET make regarding the continuation of education, protective measures and other health protocols play a significant role in shaping teaching and learning.

Second, the framework points to institutional-level factors that influence higher education and its delivery of teaching and learning. For example, infrastructure and other educational resources play a role in delivering education. The availability and adequacy of technological infrastructure, digital resources, and physical facilities within TVET Colleges contribute to education. This also aligns with institutional preparedness (i.e., the readiness of TVET Colleges to transition to online teaching and learning) including pre-existing infrastructure and digital literacies among staff and students. Finally, available support systems/mechanisms that are in place to support staff and students (i.e., financial support, academic support, and health resources) plays a significant role in the delivery of teaching and learning during the pandemic.

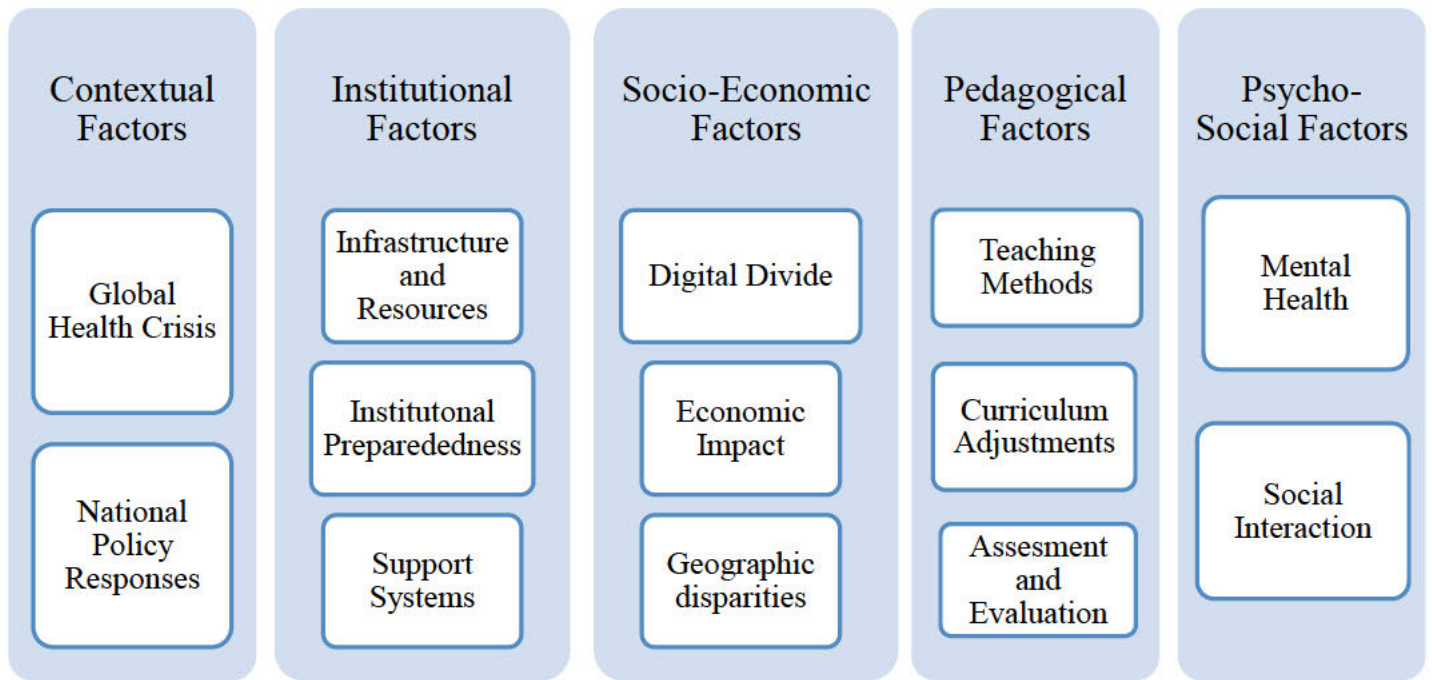


Figure 2.1: Framework of understanding the impact of COVID-19 on South African TVET College

Third, the conceptual framework illustrates the significance of socioeconomic factors in influencing education during the pandemic. For example, the framework highlights the digital divide, which is disparities in accessing technology and the internet among students from diverse socioeconomic backgrounds, as an important factor influencing education. Moreover, the economic consequences of the pandemic on students and their families affect their ability to participate in and benefit from online learning. Finally, differences in access to educational resources and technology between urban and rural areas create geographical disparities.

Fourth, pedagogical factors are significant factors in influencing education during the pandemic. For example, the adaptation of teaching methods to online formats, including both synchronous and asynchronous, plays a significant role in the delivery of education. Likewise, changes to the curriculum to accommodate online modes of learning, particularly the practical and hands-on courses are seen as a factor influencing education during the pandemic. Furthermore, the methods of assessing students' performances and their learning outcomes in the online learning sphere are important for education during the lockdown period of the COVID-19 pandemic.

Finally, psychological and social factors are critical for understanding the impact of the COVID-19 pandemic on education. The psychological impact of the pandemic and online

teaching and learning on students and lectures include stress, anxiety, depression and social isolation. Moreover, changes in the nature and quality of social interactions among students, as well as between lecturers and their students pose significant mental health harm. The COVID-19 pandemic has profoundly impacted higher education worldwide, presenting unprecedented challenges and revealing significant disparities in access and quality. The literature reviewed in this chapter highlights the resilience and adaptability of educational institutions, while also identifying critical gaps and areas for future research. By addressing these gaps and leveraging innovative approaches, higher education systems can become more robust, inclusive, and equitable in the face of future crises. The experiences of TVET Colleges during the pandemic underscore the importance of practical skills training and the need for tailored support systems.

The chapter that follows presents a theoretical framework that provides parameters for the study, accompanied by guided data analysis.

CHAPTER THREE

THEORETICAL FRAMEWORK

3.1 Introduction

This study examined the teaching and learning experiences during the COVID-19 pandemic's 'hard lockdown' at a TVET College in Gauteng, South Africa. Specifically, it focused on the perspectives of lecturers and students regarding their experiences during this period. As discussed in Chapter One, the study addressed two critical research questions:

1. How do TVET College lecturers and students describe their teaching and learning experiences during the height of the COVID-19 national lockdown?
2. What teaching and learning-related challenges and opportunities did TVET College lecturers and students encounter during the height of the COVID-19 national lockdown?

In this chapter, I outline the theoretical underpinnings of the study. First, I locate the study within Ronald Rogers' (1975) Protection Motivation Theory (PMT), explaining its relevance for analysing teaching and learning experiences during the COVID-19 outbreak in a TVET College. This leads to a third section, which details the components of this theory as applied in this study. Ronald Rogers' ideas are shown to be particularly pertinent to this context. The COVID-19 outbreak significantly affected teaching and learning activities in higher education institutions globally, introducing new duties and expectations for both lecturers and students. chapter concludes by presenting the propositions guiding the data analysis.

3.2 Protection Motivation Theory

The analysis in this study was conducted within Ronald Rogers' (1975) PMT. This theory analyses how individuals assess and respond to threats (referred to as threat appeal) and determine how likely those individuals would be to follow recommended preventative measures. PMT proposes that the likelihood that an individual will comply with recommended measures during a crisis depends on their perception of their relative effectiveness, their ability to perform these measures, and any associated difficulties they may perceive (referred to as coping appraisal). Thus, the central tenet of the theory is that:

Individuals protect themselves based on their perceptions of four factors: 1) the severity of a threatening event; 2) the probability of the occurrence of a threat; 3) the recommended preventive behaviour; and 4) self-efficacy to adopt the recommended behaviour (Al-Rasheed, 2020, p. 548).

According to Rogers (1975), PMT was initially developed to explain the effects of using persuasive messages, or appealing to fear, to influence the threat and coping appraisal processes that ultimately guide behaviour. In this regard, the theory encompasses both threat and coping appraisal pathways, which are useful in explaining the intention and reluctance to engage in protective behaviours (Al-Rasheed, 2020). Writing about threat appraisal, Rogers (1975, p. 141) suggests that this component includes the following:

1. **Perceived severity:** An individual's assessment of the potential severity of a given threat.
2. **Perceived vulnerability:** An individual's assessment of their own vulnerability to a given threat.
3. **Fear:** A feeling generated in response to a given threat, that may be described as 'frightened', 'worried', or 'nervous' (Maddux & Rogers, 1983).

On the other hand, the coping appraisal component of PMT includes concepts such as:

1. **Self-efficacy:** An individual's assessment of their own ability to perform the recommended preventative measure.
2. **Response efficacy:** An assessment of the potential effectiveness of a given preventative measure.
3. **Response cost:** An individual's assessment of the degree of inconvenience or difficulty implied by undertaking a given preventative measure (Rogers, 1975, p. 144).

According to the revised PMT (1983), the twin concepts of self-efficacy and response efficacy are what motivate adherence to recommended preventative measures, while response cost may result in an individual deciding to ignore these measures, thereby harming behavioural intentions. The way in which the model incorporates threat perception relates to TVET College lecturer and student assessments of the severity of COVID-19-related threats (perceived severity), vulnerability to these threats (perceived vulnerability), and emotions such as worry about these threats (perceived threat), and how these shaped their teaching and learning experiences. Moreover, the concept of perceived threat in this study is used interchangeably

with the concept of fear. The coping appraisal component was considered to involve efficacy perceptions, which relate to the assessment of the ability to undertake recommended COVID-19 guidelines (viz. perceived COVID-19 effectiveness) and the assessment of the difficulty of following them (viz. perceived cost).

3.2.1 Conceptualisation of the Protection Motivation Theory

PMT asserts that protective behaviour is primarily predicted by behavioural intentions (Rogers & Prentice-Dunn, 1997). However, a meta-analysis of PMT, which measured both intentions and actual behaviours, suggests that PMT effectively predicts both. Furthermore, the PMT model elucidates how perceptions of threat and efficacy influence behaviour, making it suitable for this study. This research further examined teaching and learning experiences by leveraging key PMT concepts: perceived severity, perceived vulnerability, perceived threat, perceived effectiveness, self-efficacy, and perceived costs related to intended compliance with COVID-19 guidelines. Figure 3.1 below illustrates the theoretical principles of PMT applied in this study.

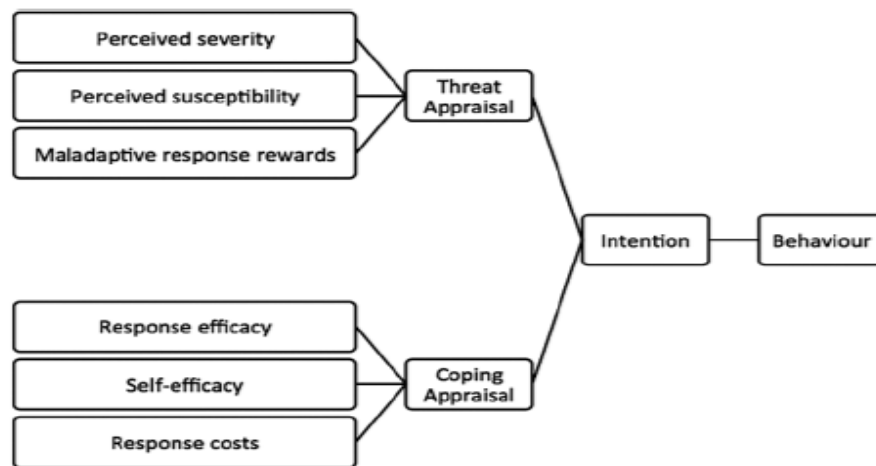


Figure 3.1: The Protection Motivation Theory (adopted from Rogers, 1975).

The following section describes the fear appeals examined in this study.

- **Fear Appeals**

Fear appeals refer to those persuasive messages designed to motivate individuals to undertake recommended behaviours (Maddux & Rogers, 1983). They aim to convince people that they

possess sufficient capability to successfully execute the requisite safety measures (Bandura, 1982). This approach has been used in health-related studies to understand how individuals adopt recommended preventative measures to safeguard their health and that of others (Rippetoe & Rogers, 1987; Hsieh et al., 2017; Zhang et al., 2023; Milne et al., 2006). This study considered appealing to fear to enhance the adoption of COVID-19 preventative measures and to avoid infections (Johnston & Warkentin, 2010). It also examined the role of fear in securing compliance with COVID-19 regulations, without compromising the quality of teaching and learning. By using this aspect of PMT, the study focused on how behavioural changes in reaction to the COVID-19 pandemic impacted teaching and learning experiences in the TVET College under study.

- **Effects of Threat Perception**

According to PMT, the assessment of threat on the part of the individual, viz. perceived vulnerability, and their assessment of the severity of the threat, viz. perceived severity, directly influence behavioural intentions (Maddux & Rogers, 1983; Prentice-Dunn & Rogers, 1986; Rogers, 1975, 1983). These respective concepts also trigger emotion in response to threats (Maddux & Rogers, 1983). In this study, the perceived threat was synonymous with fear as described in PMT, assuming that adopting a protective behaviour against health threats depends on personal motivation for self-protection (Rad et al., 2021).

- **Effects of Perceived Severity of the COVID-19 Pandemic**

Perceived severity relates to the extent to which lecturers and students believe that the consequences of the related threats would be severe. PMT suggests that a higher perception of the severity of threats increases the likelihood that individuals will comply with recommended precautions (Rogers, 1975, 1983, 1985; Maddux & Rogers, 1983). Therefore, lecturers and students who believe that COVID-19 poses severe consequences are more likely to adhere to preventive measures.

- **Effects of Perceived Vulnerability of the COVID-19 Pandemic**

In this study, perceived vulnerability refers to the degree of belief in the likelihood of experiencing COVID-19-related threats (Maddux & Rogers, 1983). PMT proposes a direct link between the concepts of perceived vulnerability and behavioural intention, towards generating recommended precautions. This suggests that if individuals perceive likely exposure to COVID-19, there is a greater likelihood of compliance with recommended preventative measures and guidelines.

However, the association between perceived vulnerability and intention to practice recommended measures may not be straightforward. Some health-related studies have not confirmed the impact of perceived vulnerability on motivation to implement preventative measures (Kapar & Nordmeyer, 2022; Hinssen & Dohle, 2023; Wolfe et al., 2022; Lahiri et al., 2021; Coraline et al., 2020). Furthermore, a meta-analysis of PMT studies shows that while some studies find a substantive relationship between perceived vulnerability and intention (Milne & Milne, 2000).

Weinstein (1984) argues that there is a general tendency towards unrealistically low degree of threat perception, noting that the reduced perceived vulnerability may harm preventative behaviours. According to Liang & Xue (2010), perceived severity and vulnerability also have an indirect effect on behavioural intentions through perceived threat, with perceived threat mediating the relationship. This may explain the mixed findings in studies examining the direct effects of perceived vulnerability on behavioural intentions.

3.6 Limitations of Protection Motivation Theory and Its Relevance for this Study

Despite its widespread use, PMT has several limitations. First, according to Rogers and Prentice-Dunn (1997), the theory assumes that human behaviour is primarily rational and driven by cognitive assessments of threats and coping mechanisms. However, human behaviour can be influenced by a variety of irrational factors, including emotions and social influences, which PMT may not fully account for (Rogers & Prentice-Dunn, 1997). Second, the PMT primarily focuses on individual cognitive processes and does not adequately address the role of social and environmental factors that can influence behaviour. For example, peer pressure, cultural norms, and socioeconomic status can significantly impact one's ability to

perform recommended behaviours (Floyd, Prentice-Dunn & Rogers, 2000), which the theory is largely mum about. Third, the theory presumes that individuals have access to the necessary resources and support systems to enact the recommended protective behaviours. This may not be the case in many real-world scenarios (as I show in Chapter Five), especially in resource-limited settings (Bish & Michie, 2010). Fourth, while fear appeals can be effective, there is a risk of inducing excessive fear, which can lead to maladaptive responses such as denial, avoidance, or fatalism instead of constructive protective actions (Ruiter, Kessels, Peters, & Kok, 2014). Fifth, PMT does not adequately consider the influence of past behaviours on current intentions and actions. Previous experiences and habits can significantly shape how individuals respond to new threats and coping strategies (see, for example, Orbell & Sheeran, 1998). Finally, although PMT can predict intentions well, there is often a gap between intentions and actual behaviour. Various factors, such as implementation intentions, environmental constraints, and unforeseen barriers, can prevent the translation of intentions into action (Sheeran, 2002).

However, despite these limitations, PMT remains highly relevant for this study on teaching and learning experiences during the COVID-19 pandemic for several reasons. Firstly, PMT's core components, such as perceived severity, vulnerability, self-efficacy, and response efficacy, are crucial for understanding how lecturers and students perceived and responded to the COVID-19 threat. This framework helps to elucidate the psychological processes that influenced their adherence to preventive measures (Maddux & Rogers, 1983). Secondly, the theory provides valuable insights into the motivational factors driving behavioural change. By examining how fear appeals and threat perceptions influence compliance with COVID-19 guidelines, the study identifies key factors that facilitated or hindered effective teaching and learning during the pandemic (Milne et al., 2000). Thirdly, PMT has been extensively used in health-related research to understand the adoption of preventative measures. Its application to the context of a health crisis like the COVID-19 pandemic is appropriate and can provide a structured way to analyse the responses of educational stakeholders such as lecturers and students (Rippetoe & Rogers, 1987). Fourthly, the theory's emphasis on enhancing perceived self-efficacy and response efficacy informs this study's implications that are aimed at guiding compliance with health guidelines (see Chapter Six). This is particularly relevant for developing strategies to support lecturers and students in adapting to new teaching and learning modalities during health crises (Bandura, 1982). Finally, by incorporating the concept of fear appeals, PMT allowed the study to explore the emotional dimensions of the pandemic experiences. Understanding the

role of fear and other emotions provided a more comprehensive picture of the challenges faced and the coping mechanisms adopted by lecturers and students (see, for a similar discussion, Johnston & Warkentin, 2010).

3.7 Discussion: Towards a Theoretical Framework

The study reported in this dissertation examined teaching and learning experiences during the COVID-19 'hard' lockdown at one TVET College in Gauteng, South Africa. Data analysis was framed within the Protection Motivation Theory (Rogers, 1975), a valuable lens for examining behavioural changes through persuasive communication (Weinstein, 1993) and understanding how such communication can be effectively designed (Rogers, 1983). The objective of the study was to analyse the teaching and learning implications of complying with COVID-19 guidelines. A vital component of this study was the use of fear appeals to elicit the experiences of students and lecturers in the teaching and learning environment. The role of persuasive communication was a critical element of the analysis.

The PMT model has substantial support in public health discourses for explaining the use of protective measures against potential health threats (Rippetoe & Rogers, 1987; Hsieh et al., 2017; Zhang et al., 2023; Milne et al., 2006). It offers theoretical guidance for understanding the use of protective measures in response to public health outbreaks such as the COVID-19 pandemic. Using the Protection Motivation Theory helped develop a deeper understanding of how TVET College students and lecturers experienced teaching and learning during the COVID-19 lockdown. The theory provided insights into what motivated lecturers and students to comply with COVID-19 guidelines and how this compliance affected their teaching and learning experiences. Additionally, the study examined how participants experienced teaching and learning inside and outside the physical classroom while adhering to COVID-19 regulations. Thus, PMT was a useful model for understanding the factors that encourage or discourage the use of protective measures in response to potential COVID-19 infections. It also helped analyse how students and lecturers assessed information to decide whether to apply protective responses in teaching and learning. Therefore, the theoretical lens applied in this study was a modified version of PMT, focusing on perceived vulnerability and behavioural changes in teaching and learning.

PMT was initially developed to predict behavioural changes through persuasive communication and to understand the motivations and ways in which responses to potential threats to health and safety take shape, and how these responses affect daily experience (Rogers, 1975). PMT suggests that both individual and environmental factors can either encourage or discourage protective behaviours, with individual cognitive processes mediating these effects. These cognitive processes aim to distinguish from the assumed direct relationship between emotional fear and protective responses (Clubb & Hinkle, 2015). Rogers (1975) established a comprehensive fear appeals framework, identifying key stimulus variables that can be distinctly framed within a fear appeals message to target specific perceptions.

According to Rogers (1975), there are three independent stimulus variables: (i) magnitude of noxiousness; (ii) probability of threat; and (iii) efficacy of the recommended response. An individual's perception of severity, susceptibility, and efficacy of the recommended response to threat respectively develop from a cognitive mediational process, involving appraisals of information about the magnitude of noxiousness, probability of occurrence, and efficacy of the response. These perceptions impact PMT.

Central to this study was the motive to create a space for lecturers and students to communicate about their teaching and learning experiences during the COVID-19 pandemic. By adopting this theoretical lens, I drew on the understanding and contexts of lecturers and students to examine their experiences during COVID-19 at their TVET College in Gauteng Province, the epicentre of the COVID-19 pandemic in South Africa.

3.6.1. Framework for Analysing Teaching and Learning Experiences During COVID-19

This study engaged a select group of lecturers and students from a TVET College in Gauteng Province to examine their teaching and learning experiences during the height of the COVID-19 'hard lockdown'. Data analysis in the study was informed by the Protection Motivation Theory (PMT), which addresses how an individual's fear about a particular event or outcome might facilitate behavioural change to protect themselves from the threatening event (Adunlin et al., 2021). The application of this theory was premised on the belief that it can enhance understanding of protective behaviours in response to the COVID-19 pandemic and how such behaviours impacted teaching and learning experiences.

Informed by the research questions posed in this study, two theoretical assumptions guided the data analysis. First, PMT provided a framework for analysing lecturers' and students' decisions to engage in risk-preventative practices to protect themselves from the threat posed by the COVID-19 outbreak. The theory also provided a framework for analysing students' and lecturers' teaching and learning experiences within the context of adoptive preventative practices. In other words, the theory offered a lens for analysing the various ways engaging in protective practices shaped and influenced teaching and learning experiences among TVET College lecturers and students.

Two propositions for data analysis were formulated to address the research questions posed in this study. The first research question was: *How do TVET College lecturers and students describe their teaching and learning experiences during the height of the COVID-19 national lockdown?* Informed by PMT, the analysis assumed that, following persuasive communication on behavioural change, both lecturers and students assessed their risk and responded to COVID-19 threats by following recommended protective guidelines from public and campus authorities. In this context, the students' and lecturers' perceived vulnerability and self-efficacy determined behavioural shifts towards safer practices, such as conducting teaching and learning activities away from campus and in their respective private spaces.

The second research question was: *What teaching and learning-related challenges and opportunities did TVET College lecturers and students encounter during the height of the COVID-19 national lockdown?* Linked to PMT, the analysis assumed that adopting protective practices during the height of the COVID-19 pandemic had substantial response costs, including mainly challenges for teaching and learning activities at the TVET College. Thus, the analysis assumed that both threat and coping appraisals were dynamic processes involving ongoing risk assessment and adaptation to the so-called 'new normal' (see Genuis et al., 2022). Guided by these propositions, my analysis focused on teaching and learning experiences during the COVID-19 lockdown period, as articulated by selected lecturers and students from a TVET College. This analysis explored how these participants experienced teaching and learning and what challenges and opportunities emerged during this period.

3.8 Chapter Summary

In this chapter, I have discussed the Protection Motivation Theory (PMT) as the theoretical lens that informed the analysis of this study. The theory provided a framework for analysing the teaching and learning experiences of TVET College lecturers and students during the challenging lockdown period of COVID-19. PMT was a valuable framework for understanding why students and staff had certain experiences during the pandemic. The chapter concluded with two propositions that guided the analysis of this research.

The next chapter presents the research design and methodology used in this study to address the research questions, as well as the research approaches adopted for generating data.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

The purpose of this study was to examine the teaching and learning experiences of TVET College lecturers and students during the period of the so-called ‘hard lockdown’ that was instituted in response to the rapid spread of COVID-19. The study was conducted at a single TVET College in the Gauteng province of South Africa and addressed two critical questions as outlined in Chapter One. In Chapter Three, I provided the theoretical framework that informed the analysis of this study. In that chapter, I presented two propositions that were used to guide data analysis. In this chapter, I provide the research design and methodology used in the study. The chapter is organised as follows. First, I outline the research paradigm used to guide the methodology I adopted for generating data. This is followed by an outline of the research design, the location of the study, the qualitative approach I applied in this study, and how I gained access to the TVET College. Sections that detail the study’s sampling and participant recruitment procedures precede a section on data collection processes and data analysis. The chapter concludes with a discussion about the trustworthiness of the study and the ethical considerations that informed the study.

4.2 Research Paradigm

As mentioned in Chapter One, the study’s methodology was guided by the interpretive research paradigm. According to Bryman and Bell (2007), interpretivism is different to the positivist paradigm in that positivists study phenomena through statistical empirical means, while interpretivists study phenomena through individuals’ lived experiences, perspectives, and understandings (see also Henning et al., 2004). Interpretivism is, thus, primarily concerned with understanding the complexities of human behaviours in their social settings (De Villiers, 2005). This paradigm conveys that reality is engineered by social actors and people’s perceptions of it (Kavous, 2010; Nickerson, 2024). Individuals from divergent sociocultural backgrounds bring assumptions and experiences to the perpetual construction of a broader social reality (Hennink et al., 2011). Interpretivists adopt qualitative approaches taking knowledge as subjective, reflecting unique realities stemming from local contexts. In such a

way, researchers are able to reach rich descriptions of social constructs. This intensifies the societal factor, where detailed narrative accounts are used.

Furthermore, the researcher and participants are not isolated because both influence the generation of data in their context. From an ontological standpoint, people interpret and make sense of reality (Edirisingha, 2012; Khan, 2015; Trivedi, 2020). The qualitative study presented in this dissertation lends itself to subjective data by exploring human action through their experiences related to the COVID-19 pandemic. Qualitative research is concerned with developing explanations of social phenomena, such as teaching and learning experiences during the heightened COVID-19 alert lockdowns, that inform understanding about the world which we inhabit and why things exist the way they do (Hancock, 2002). Research informed by the interpretivist paradigm focuses on the opinions, feelings, and experiences of individuals. This aligns with the societal and personal factors since the participants use their personal experiences to share data (i.e., their stories/what they have experienced), and it is their social contexts that shape those experiences and feelings.

In this study, I was interested in understanding the social worlds of the participants and their experiences of teaching and learning within the context of the COVID-19 pandemic. However, one cannot understand these aspects or phenomena without understanding the thoughts, feelings and experiences as well as assumptive worlds in which lecturers and students operated during this period. Moreover, by adopting the interpretive paradigm, I wanted to allow the participants to share their full experiences of the phenomenon under study. In this study, the lecturers and students discussed their experiences of teaching and learning during the COVID-19 pandemic within the TVET College system. The interpretive paradigm was, therefore, relevant for understanding how the pandemic ultimately affected teaching and learning.

4.3 Research Design

In this study, I chose a qualitative research design to generate data because I believed this approach would allow me as a researcher to understand in-depth the experiences of the participants (Maxwell, 2008). Researchers use qualitative research approaches to understand the meanings that individuals or groups attribute to a social phenomenon (Cresswell, 2014). According to Silverman (2011), the qualitative approach focuses on how people see things and how those things shape behaviour, as well as how they interact with one another in a particular

social environment. Qualitative researchers first gain a first-hand, holistic understanding of a given phenomenon, and the process of investigation shapes data production (Babbie & Mouton, 2011).

According to Fouche and Schurint (2011), in qualitative research, data is collected in the participants' natural and social environments through naturalistic observation rather than controlled measurement. In this study, this approach helped me as I gained valuable knowledge on the teaching and learning experiences of students and lecturers during the COVID-19 outbreak in their TVET College. I used a qualitative research approach as it was most suitable because it relied on verbal and textual data rather than numerical or quantifiable data. As such, the qualitative approach I adopted in this study allowed me, as the researcher, to understand the participants' ideas, perspectives, actions, feelings, and experiences.

4.4. Research Site and Context

The setting for this research study was the Far Ekurhuleni Technical Vocational Education and Training College (FETVETC) (not its real name). The College was established as a result of a merger of five Technical Colleges, namely Lakeside Technical College, Vutha Technical College, Thema Technical College, Pollark Technical College, and WRIGHT, which later became the Skills Development Centre (not their real names). Moreover, the College is situated in the Eastern region of Ekurhuleni Metropolitan Municipality in the Gauteng Province. Ekurhuleni is a Tsonga name meaning 'place of peace'; thus, the College is named after this beautiful name. The Ekurhuleni Metropolitan Municipality (EMM) covers an extensive area of about 1 952 km². The EMM comprises nine towns: Alberton, Benoni, Boksburg, Brakpan, Edenvale, Germiston, Kempton Park, Nigel, and Springs. Included in these towns are 17 townships. Geographically, Ekurhuleni is uniquely situated. It borders the northern part of the Tshwane Metropolitan Municipality and the southern part of the Johannesburg Metropolitan Municipality. The Ekurhuleni Metropolitan Municipality is spread over 15.6 % of Gauteng's land mass. It is the fourth largest municipality of all metropolitan areas in South Africa.

The College is spread across five towns in the Ekurhuleni Metropolitan Municipality. These are: Benoni, Kwa-Thema, Brakpan, Daveyton and Springs. It comprises six college sites located in these five towns. Five campuses that offer mainly National Certificate Vocational (NCV) and Report 191 courses in both semester and trimester programmes are Lakeside

Technical College, Vutha Technical College, Mothlabi Technical College, and Pollark Technical College (not their real names). In 2015, the College established a Centre situated in the industrial area of Springs that specialises in artisans and skills training programs. The strength of the College is embodied in its location in the EMM. Ekurhuleni has a total surface area of 1975 km² that accommodates a population of over 3 million people, according to Statistics South Africa (Stats SA) (Stats SA, 2011). This means that the College has a large catchment area from which to recruit potential students. Figure 4.1 illustrates.



Figure 4.1: A Map of the Ekurhuleni Metropolitan Municipality where the college is situated.

Source: www.maps.google.com

The College offers a mix of NC(V), artisan and skills programmes, Report 191, and Pre-vocational learning programmes, with the NC(V) programmes being a significant offering. Furthermore, the College boost:

- 11 National Curriculum Vocational (NVC) programmes spread across the Engineering, Business, ICT, Tourism, Process Plant Operations and Hospitality Sectors.
- 6 Report 191 programmes spread across the Engineering, Business, Tourism and Hospitality sectors.

The TVET College under study was selected based on two criteria. First, the research focused on teaching and learning experiences in the TVET College sector during the height of the COVID-19 pandemic. This means that I needed to select a college that would have likely experienced the impact of the pandemic. Given that the Gauteng Province was the epicentre of the COVID-19 outbreak in South Africa (i.e., the province presented the highest rates of infections and deaths compared to other provinces), I envisioned that the epidemic would have significantly impacted a college suited within the province. Figure 4.2 illustrates.

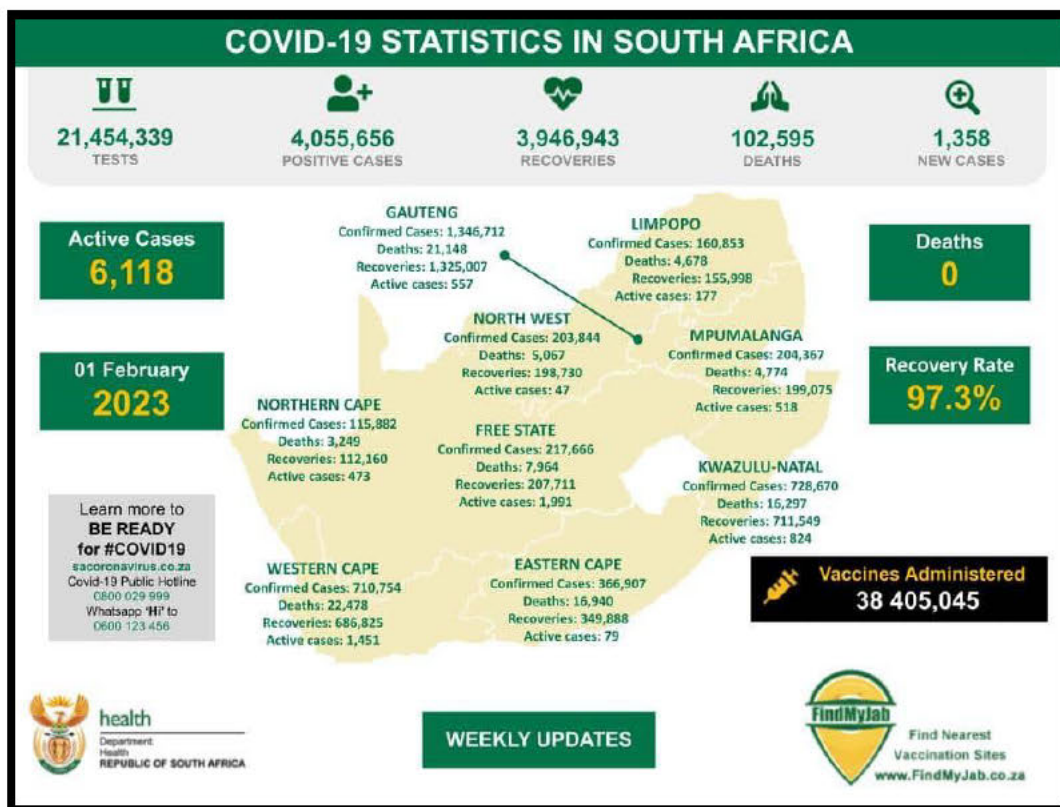


Figure 4.2: Snapshot of COVID-19 Daily Cases. Sourced from the SA Corona Virus Online Portal, 18 August 2023. Source: <https://sacoronavirus.co.za/covid-19-daily-cases>.

Second, the College is characterised by limited resources, including digital modes of teaching and learning. Thus, the move from physical contact forms of teaching and learning to online digitally based modes presented ‘new’ challenges and opportunities. In 2020, when COVID-

19-related infections were on a dramatic rise, the then Minister of Higher Education and Training, Dr Blade Nzimande, presented measures to curb and reduce the spread of the virus within higher education institutions. For example, the Minister instructed institutions of higher learning to implement online teaching and learning programmes because of COVID-19's physical blockade. Several, if not all, educational institutions have made significant changes, moving swiftly from traditional face-to-face modes of learning to remote online learning in a relatively short amount of time (Kandri, 2020).

Internationally, the impact of the COVID-19 pandemic on higher education has garnered significant scholarly attention (WHO, 2020; Wang and Sun, 2022; Gogoi et al., 2022; Le Grange, 2022; Arday, 2022; Salakhova et al., 2022; Mthethwa and Luthuli, 2021). However, research within the South African context remains comparatively underdeveloped in this area (WHO, 2020). Notably, Dhuki et al. (2024) observed that, while many higher education institutions (HEIs) were equipped to transition to online learning and made provisions for student internet access, students enrolled at TVET colleges faced considerably more challenges during the lockdown. A disproportionate focus on universities, at the expense of TVET colleges, further exacerbated these difficulties. Dube, Makola, and Tabane (2023) contend that one of the key reasons for the disparity in attention lies in the perception of universities as more prestigious and desirable post-secondary study options, overshadowing TVET colleges. These persistent bias influences both institutional support and student enrolment patterns, positioning universities as the dominant choice for post-school education, while TVET colleges remain marginalised.

This is worrying considering that the COVID-19 pandemic has caused much havoc on educational systems in the country when compared to previous global pandemics in recent history. According to UNESCO (2020), institutions of education closed completely in 185 countries, affecting more than 1,5 billion (or 89.4 %) students around the globe (Marinoni & De Wet, 2020). For example, a considerable number of students dropped out of educational institutions as a result (UNESCO, 2022; Tsolou, 2021; Moscoviz & Evans, 2022). According to the World Bank (2020), more than 220 million post-secondary students were forced to discontinue studying or have had their studies seriously disrupted. However, the Far Ekurhuleni Technical Vocational Education and Training College (FEC) continued to invest in teaching and learning through digital online platforms such as WhatsApp, where, for example, group discussions were facilitated. It was also for these reasons that this College was selected as a

research site for this study. In the following section, I provide details about the campus in which the research presented in this dissertation was conducted.

4.4.1 The TVET College Studied

The primary study setting for data generation was the Lakeside Campus. With an emphasis on Business Studies, this modern campus, situated in the heart of Benoni, specialises in programmes for both pre-and-post Grade 12 students as well as Artisan Development Programmes (N1 to N3 Engineering). The business programmes offered include Human Resource Management, Financial Management, Marketing and Management Assistant in the Report 191 qualifications, Office Administration, Safety in Society and Management in the NC (V) qualification. At the time of data generation, the campus had an enrolment of 4,460 students, mainly coming from surrounding communities. In contrast, other students came from different provinces to study at the campus and find accommodation in the surrounding neighbourhoods. The campus enrolls both men and women students (who are primarily Black African), including those living with disabilities. It is also speckled with student-centred amenities that include a campus hall, a students' social centre, an auditorium, a library, and a computer centre adorned by computers that the ABSA Bank donated. In the more prominent Far Ekurhuleni TVET College (FEC), the Lakeside campus is regarded as the best academically performing of all the College's campuses. Performance is measured by the number of graduating students per year. It is within this broader context that this study was conducted.

4.5 Gaining Access to the TVET College

As I discussed in Chapter One, I am a campus manager at a TVET College in Gauteng. This aspect of my professional life made it easy to access a TVET College, given that I have a network of contacts within the TVET College sector in the province. I, therefore, identified a suitable College for the research and settled for the Far Ekurhuleni TVET College. Specifically, I opted for this College as it was logistically more straightforward to access. To gain access to the college, I first approached the principal via email communication and sought permission to conduct research with students and lecturers at her college (I will return to this later in the chapter). The principal invited me to a meeting in her office, where I had the opportunity to explain my research and the insights I wanted to gain from the research. After

our initial meeting, the principal provided me with permission from the gatekeeper to pursue the study. The principal also permitted me to recruit both students and lecturers at the College. I discuss all gatekeeper issues later in the Chapter.

4.5.1 Participants and their Recruitment into the Study

Research sampling is defined by Christiansen and Bertram (2014) as making decisions about which individuals will act as participants and which setting, events or behaviours to focus the study on. Taherdoost (2016) regards sampling as a process used to study a small portion of the population's response to an intervention, which can be transferable to a larger population with similar traits. Cresswell (2013) concurs that to produce empirical evidence about a large population, it is preferable to look at a small portion of the population. Maree (2012) also argues that sampling must be performed with a specific purpose in mind to maintain the manageability of the research. Since it is almost impossible to use the whole population as participants in the study due to factors such as time, expense, and accessibility, a manageable sub-group is selected to act as a representation of the whole population (McCombes, 2023; Suresh, 2011; Cresswell, 2013).

To recruit participants in this study, I employed purposive sampling, which is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources (Palinkas et al., 2016). This involves identifying and selecting individuals or groups of individuals who are incredibly knowledgeable about or experienced with a phenomenon of interest (Cresswell & Plano Clark, 2011). In addition to knowledge and experience, Bernard (2002) and Spradley (1979) note the importance of availability and willingness to participate, as well as the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner. I, therefore, employed this technique to recruit 12 lecturers and 15 students as informants for the research.

The sampling criteria used to recruit lecturers into the study were both men and women who were actively employed as full-time lecturers at Far Ekurhuleni TVET College in 2020-2021. For the students, I sought both men and women who were registered full-time. I recruited students who came from low-income households because I anticipated that they may not have had the technological resources needed to carry their lessons outside of their campus. In the build-up to the study, I held several meetings with the campus senior management and

administrators, where it emerged that those students who came from middle-class households were always first to submit their work and contact lecturers and admin staff. This was proven by their records, such as home addresses and when their marks were received for capturing. This was another important reason for excluding students who were coming from middle-income households. Some of the sampled lecturers were at the junior level, some at the senior level and were called Program Managers, while all students selected were from different fields of study. Therefore, their experiences of engagement in teaching and learning had a direct impact on the context of teaching and learning. This makes them trusted for being data-rich participants for this study. Two of the lecturers were also part of the College's COVID-19 Committee, which was responsible for ensuring that teaching and learning happen in a safe place.

I recruited five students, one program manager and two lecturers from R191 Engineering (trimester courses), five students, one program manager and three lecturers from R191 Business Studies (semester courses) and finally, five students, two program managers and three lecturers from NCV (year courses). The reason was to allow students and lecturers across all programs to share their experiences. The engineering school is the smallest in terms of enrolment numbers and staff establishment; hence, only two lecturers were recruited. I deliberately selected participants from the Lakeside Campus to understand their teaching and learning experiences during the COVID-19 outbreak because the campus offers a variety of programs. My study only sought to understand the experiences of both lecturers and students during the time of the heightened COVID-19 pandemic alert and how these participants dealt with challenges and opportunities during the pandemic. I sought out knowledgeable lecturers and students who have had varying experiences as they were part of the College in 2020-2021 when COVID-19 was at its peak. This was determined by the lecturers' teaching experience and only those students and lecturers who were part of the college during the heightened alert of COVID-19 were recruited to form part of the study. Therefore, for this study, the participants had to be knowledgeable people (Cohen et al., 2018) about the phenomenon under investigation.

While I had initially aimed to recruit ten lecturers and ten students, when 15 students and 12 lecturers showed interest, I allowed them to participate in the study. I believed that this decision would provide me with rich contextual data. Moreover, it was vital for me to allow only those

students who were registered full-time during the heightened alert period of COVID-19. Those students who were interested but did not meet the criteria outlined above were excluded.

The participants for the study were lecturers in the age range of 28-59 years, while the students aged 18-25 years came from different provinces but are currently located within the surrounding neighbourhoods. As per the recruitment criteria for lecturers, I needed to get the experiences of the younger generation, who were already exposed to technology, and the older generation, who are digital migrants. The age range of students was also significant, as those who were still in their teenage years did not necessarily have the same experiences as those who were in their early adulthood. The students were enrolled for NCV and R191 qualifications, with a majority at their exit level. Due to the sensitive nature of the topic, I excluded those who were still mourning the passing of their family members and seemed emotionally sensitive to participate in the study.

Moreover, using the criteria outlined above, I recruited a total of 27 lecturers and students as participants in the study. A message about my research study was sent in the staff room during the morning rounds of daily announcements. The lecturers passed messages in their classes, and those who were interested in my study availed themselves at the student centre near the campus hall. I have provided the participants' information in Table 4.1 below, which contains biographical details of the lecturers who participated in the study. Table 4.2 presents biographical data for the student participants. To protect the identities of the participants, I have used pseudonyms instead of their real names. The sample of lecturers consisted of six women and six men, while the sample of students consisted of 10 women and five men. As per the recruitment criteria, none of the participants had tested positive for COVID-19 at the time of data generation at the time of the research.

Table 4. 1: Lecturers' Biographical Information

S/No	Name	Age	Position
1.	Simphiwe	29	Junior Lecturer
2.	Thabo	31	Program Manager (Senior Lecturer)
3.	Oscar	47	Program Manager (Senior Lecturer)
4.	Theto	28	Junior Lecturer

5.	Mahlatse	32	Junior Lecturer
6.	Maureen	40	Junior Lecturer
7.	Kay	38	Program Manager (Senior Lecturer)
8.	Khulu	31	Junior Lecturer
9.	Fifi	36	Junior Lecturer
10.	Themba	59	Program Manager (Senior Lecturer)
11.	Muntu	29	Junior Lecturer
12.	Lesedi	35	Junior Lecturer

Table 4.2: Student's Biographical Information

S/No	Name	Age	Programme Registered	Year of Study
1.	Hile	18	R191 N4	One
2.	Mathabo	22	NCV L4	Three
3.	Atlegang	23	NCV L4	Three
4.	Moshe	21	R191 N4	One
5.	Marcia	19	NCV L4	Three
6.	Thapelo	22	R191 N4	One
7.	Kabelo	20	R191 N4	One
8.	Zoey	21	NCV L4	Three
9.	Hlogi	20	R191 N4	One
10.	Snowie	21	R191 N4	One
11.	Sbu	20	R191 N4	One
12.	Lerato	21	R191 N4	One
13.	Modiegi	22	R191 N4	One
14.	Tumi	19	R191 N4	One
15.	Dorothy	25	NCV L4	Three

During the hard lockdown, some of the participants moved to their homes outside the Gauteng Province as they were only in the province for work and study purposes. Thus, their experiences of teaching and learning onsite and offsite on the College premises were envisioned to offer rich data for analysis. Given the nature of the study and the depth of the data generated, 27 participants were sufficient for this research study so as not to compromise the richness of the

data (Saunders et al., 2018). Likewise, 27 participants were not so small a number that informational redundancy or theory saturation could not occur (Sim et al., 2018; Vasileiou et al., 2018).

4.5.2.1 Getting to Know the Student Participants

Given that I was a senior manager of a TVET College campus, I needed to find a way to develop a non-threatening relationship with the students who participated in this study. I was aware of the unequal power dynamics between myself and the participants and that it was essential to create a safe space where power was shared equally. Therefore, after the recruitment process, I spent some time with the student participants inside the campus Student Centre to establish rapport and engage with them through ice-breaking activities as a way of getting to know them better. Ice-break activities are identified as necessary for establishing a positive relationship between researchers and participants (O'Brien & Dadwell, 2020). It was vital for me to engage in an ice-break activity called 'joint hands together' because this exercise made all the participants feel comfortable around me. A total number of 6 students indicated that they were seeing me for the first time; some students did not believe my age, and some remembered seeing me at the Campus entrance chatting to security personnel and echoed that they thought I worked as one of the security guards at the Campus.

I used this opportunity to respond to the participants' questions about my research by emphasising the purpose and objectives of the study. This showed me that the participants were interested in the study and that they were keen on sharing their learning experiences during the height of the outbreak of COVID-19. Moreover, I supplied the participants with all the information relating to my study, including the institution I was registered with and the nature of the research I intended to conduct. Furthermore, the participants were assured about their safety and protection regarding their participation in the study. Lastly, I assured the participants that their participation was voluntary and that they were welcome to pull out of the study at any time they wanted to. To further protect the participants and for the free flow of information, no lecturer or college staff member was present throughout the data generation processes with the students. To avoid any miscommunication and to accommodate students who were not comfortable engaging in English, all the engagements in the study were conducted in isiZulu, Sepedi and English. These are languages that I am fluent in speaking and writing.

4.5.2.2 Getting to know the Lecturer Participants

I approached the lecturing staff who participated in the study individually and supplied them with relevant details, such as the nature of the research I intended to conduct and why I thought they were the relevant people to participate in the study. The participants were keen to contribute as there was not much research done on TVET Colleges, especially around the challenges and opportunities from their perspectives. The participants' remarks and their interest in knowing about the university research studies highlighted the fact that they were keen on participating in the research.

4.6 Data Generation

As stated above, the study was informed by the interpretive research paradigm. It employed a qualitative approach to examine the experiences of lecturers and students regarding teaching and learning during the height of the COVID-19 global pandemic. A qualitative approach was used to gather data in this study. Researchers use this approach to understand the meaning that individuals or groups attribute to a social or human phenomenon (Cresswell, 2014). According to Silverman (2011), qualitative research focuses on comprehensive reflexivity, encompassing the generation and analysis of data, development and modification of theory, elaboration on or refocusing of research questions, as well as consideration made of questions of trustworthiness (Maxwell, 2008).

A qualitative research perspective necessitates a first-hand, holistic understanding of a phenomenon, where data gathering is shaped by investigation (Babbie & Mouton, 2011). In qualitative research, data is generated in the participants' natural sociocultural context. Furthermore, qualitative research emphasises processes and meanings that are not thoroughly examined or measured in terms of quantity, intensity, and frequency. Its chosen techniques serve a need for insight into non-statistical feedback and take as its substrate people's attitudes and perceptions. To generate data, the participants were engaged in Focus Group Discussions (FGD) and Semi-structured Interviews (SSI). To get rich data, both SSI and FGD were conducted in English, Sepedi, and IsiZulu so that the students could express themselves freely. Using the participants' home languages (Sepedi and IsiZulu) gave them the ability to express their perspectives freely in their own words. I have been fluent in the different languages spoken in the multilingual province of Gauteng from an early age, which made it easy for me

to engage with the participants. Lecturers were interviewed purely in English, the medium of instruction at the College. Both the SSI and FGD were digitally recorded using a voice recorder, transcribed verbatim and later translated into English for analysis.

4.6.1 Semi-Structured Interviews

The first set of data in this study was generated using semi-structured one-on-one interviews. These are often the sole data sources for qualitative research projects (DeJonckheere, 2019; Adams, 2015). Semi-structured interviews are data generation methods that are primarily conducted on a face-to-face basis between the interviewer and the participants, thus allowing the researcher to facilitate the process and allowing freedom for participants to express their perspectives (O’Leary, 2004). The main aim of SSI in qualitative research is to allow the participants an opportunity to perceive the world through their views (Mozersky, 2020). Seidman (2013) argues that participants are interviewed because the researcher is interested in their stories, including their lived experiences. Interviews are also explained as two-way conversations in which the interviewer asks the participants questions to generate data and learn about the ideas, beliefs, views, opinions, and behaviours of the participants. In contrast, the participant answers back (George, 2022). Further, SSI allows a framework for conversational two-way communication (Lincoln & Guba, 1985). In that way, I facilitated the conversation using probing as an eliciting tool. I had to choose from a variety of interview types that are on offer for researchers in qualitative studies (Gorge, 2022; Jamshed, 2014). Eye contact was maintained to ensure engagement and trust. Supporting this view, Schumacker and MacMillan (2006) claim that establishing trust, eye contact, and being genuine are among the things that help to elicit more trustworthy data. Furthermore, Cresswell (2008) argues for semi-structured interviews as a less formal but highly effective means of capturing participants' points of view.

Their ability to allow engagement with the participants in a conversational format to acquire their experiences and perspectives. According to Mason (2004), the defining characteristic of semi-structured interviews is that they have a flexible and fluid structure. I was convinced that, by using them, participants would have the freedom to express their views using their terms in articulating, for instance, the experiences of lecturers and students in teaching and learning during the time of the COVID-19 pandemic. Using semi-structured interviews, I was able to

elicit vital information regarding the experiences lecturers and students encountered during the COVID-19 pandemic in teaching and learning.

4.6.1.1 The Process of Generating Data Using Semi-Structured Interviews

For this study, I conducted all interviews after campus hours to allow both lecturers and students time to engage in their daily academic work, such as teaching and attending classes. Moreover, to generate rich data and ensure that the participants were safe during after-campus hours, I opted to use Microsoft Teams as an online platform to engage with them. Thus, each interview was a maximum of two hours. Likewise, given that interviews were after college hours, I managed to conduct two interviews each day (one with a lecturer and one with a student). All the interviews were conducted within 10 days.

To begin each interview session, I first established rapport with the participants by asking them generally about their well-being around campus. Further, I probed about their overall experiences during the COVID-19 lockdown period. I then asked them to share their perspectives and experiences about teaching and learning during the hard-national lockdown. Following this, I invited them to reflect on teaching and learning-related challenges and opportunities that TVET College lecturers and students encountered during the height of the COVID-19 national lockdown.

The participants were open and frank in sharing their perspectives. Further, they highlighted real-life examples of their encounters during this period. During each interview, I noted that participants were articulate about their experiences. This could be related to the short time between the lockdown period and the interviews. Thus, memories of the pandemic and its impact were still fresh in the participants' minds. I will discuss the study's findings in the next chapter (Chapter Five).

4.6.2 Focus Group Discussion

The second set of data was generated using FGDs. Researchers use FGDs to identify a wide range of collective perspectives from the participants since the method elicits group opinions (Sim and Waterfield, 2019). Thus, FGDs are considered a form of structured conversation between a group of individuals that researchers select to discuss and comment from personal

viewpoints on a topic that is the subject of a research project (Johnstone, 2017). This approach usually consists of more than one group session of four to ten participants in each group to ensure adequate coverage of relevant issues (Nyumba et al., 2018). FGDs are resourceful in the research project because they expose collective attitudes and beliefs about a topic in cases where extant knowledge proves insufficient for analysis or for concluding (Gammie et al., 2017).

I was motivated by the available literature in my decision to engage the participants in this study through FGDs (Gammie et al., 2017; Sim and Waterfield, 2019). For example, research suggests that FGDs help to unearth the attitude that might not be consciously revealed during individual interviews (Wang, 2006). Indeed, as scholars attest, research participants tend to feel more comfortable discussing an issue with a researcher when surrounded by other participants who share similar opinions and experiences (Levinson, 2017). Therefore, in this study, FGDs were used to explore the participants' collective perspectives and experiences regarding teaching and learning during the peak of the COVID-19 pandemic. In this study, the use of FGDs was resourceful for collectively generating sentiments from the participants to complement the richness of the in-depth interviews.

4.6.2.1 The Process of Generating Data through FGD

Overall, five FGDs were conducted, each consisting of six and five participants, respectively; two groups were with the lecturers, and the other three groups were students, which included both male and female participants within a group. The FGDs took the form of unstructured dialogues between the participants and me (Stewart & Shamdasani, 2014). In these group discussions, I played the role of a facilitator who asked probing questions to gain more clarity and insight from the participants' discussions. Each FGD had participants who occupied different levels within the College. For example, students in the group were enrolled in the second and third levels of study. Likewise, the lecturer group consisted of lecturers who taught at different levels. This helped in producing data for a diverse group of participants. The FGDs were conducted within two weeks, and they took place in one of the boardrooms inside the campus. The participants alternated between Isizulu, Sepedi and English – all of which are the local languages of the larger area where the campus is situated. I also encouraged the use of these languages because I am fluent in all of them. Each FGD was approximately one-hour long.

During each FGD, I re-emphasised confidentiality for all parties. Mainly, I highlighted the values of ethical conduct, such as mutual respect, empathy, confidentiality, self-determination, and non-judgemental attitudes (Sim and Waterfield, 2019). The FGD opened with the participants commenting on their views about the COVID-19 pandemic in the context of teaching and learning. At the end of each FGD, I thanked the participants for their participation.

In this study, data collected during both the interviews and FGDs was digitally recorded. The recordings were transcribed verbatim and later translated into English for analysis. There is a possibility that nuance may have been lost in translation. To mitigate this possible loss or distortion between languages, I listened to the original audio recording several times and re-read the transcripts to ensure the greatest possible accuracy. In the next section, I discuss the data analysis process in the study.

4.7 Data Analysis

Data analysis describes a process in which the researcher organises, accounts for, and explains the data (Cohen *et al.*, 2011). Yin (2014) describes data analysis as a process of classifying and tabularising data, while Rallis & Rossman (2012) view data analysis as a complex process because of the central role the researcher must play in making meaning of piles of data gathered during the fieldwork phase. Hesse-Biber & Leavy (2011) agree that qualitative data analysis is a complex process in that it requires a significant amount of methodological knowledge and intellectual competence.

In this study, I used thematic analysis as a method to help me identify and report patterns within the dataset (Braun and Clarke, 2006). Thematic analysis is the process of identifying, analysing, and reporting themes that emerge from the dataset (Maguire & Delahunt, 2017). The thematic analysis approach offers an accessible and theoretically flexible way to analyse qualitative data (Braun and Clarke, 2006). When conducting thematic analysis, the researcher becomes the central instrument of judgment about coding, theming, decontextualising, and recontextualising data. Braun and Clarke (2006) describe thematic analysis as resourceful for summarising the key features of large data sets. It also provides a flexible and valuable research tool that can potentially provide a rich and detailed account of data (Braun and Clarke, 2006). To fully capture the participants' experiences of teaching and learning during the heightened period of COVID-19, I had to pay full attention to the details in the generated data and

familiarise myself with it. As a primary researcher in the study, I was present throughout the data generation processes. I also transcribed and translated all the data from the recorded audio that I recorded. These phases assisted me in acquainting myself with the data.

To begin the process of analysing data in this study, I was guided by Braun and Clarke's (2006) six phases of analysis. As the primary researcher, for me to understand the experiences of the participants fully, I had to engage and familiarise myself with them (the experiences). In line with Mack et al., (2005), I organised the generated data by gathering all audio files and transcribing them to textual data. Then, I translated it from Sepedi and Isizulu to English as some of the participants used both their vernaculars and English. As Braun and Clarke (2019) have highlighted, the transcription and translation of data served as an opportunity for me to familiarise myself with the dataset further. It was through this process that I was able to take note of the ideas that the participants described.

To find recurring themes from the data, I extracted rough phrases from the extracts. Only those phrases that carried significant meaning toward the research topic were extracted. Furthermore, I extracted relevant phrases and statements. Prominent themes were also assigned. For example, I extracted phrases such as *"We worked under really stressful conditions. The issue of accessing technology for them was not possible. Only very few students had computers at home. Those managed to pass"* or *"Home is not a good environment to study. While you are trying to focus on your studies, they (adults in the family) instruct you to do house chores"*. By doing a close reading of the data, such phrases as the ones cited above became relevant to the analysis of the data, which addressed the second research question: *What teaching and learning-related challenges and opportunities did TVET college lecturers and students encounter during the height of the COVID-19 national lockdown?* The same approach was used when I analysed data which addressed the first research question.

Throughout the analysis, I continued to identify and highlight the keywords, concepts, statements and phrases that repeatedly emerged from the rough phrases. For instance, where the word *"face to face"* or *"struggle"* appeared several times, I highlighted it as a keyword. The process of identifying keywords, phrases and statements, together with highlighting themes, made it possible for me to create a narrative of the participants' experiences with teaching and learning during COVID-19. This process also allowed me to narrow down keywords.

To identify the key themes, I used the keywords and phrases I had highlighted. This process consisted of identifying and giving the names of the themes, which made it possible for me to create an insightful and in-depth narrative of the participants' experiences from the data generated. I ensured that each emerging theme corresponded accurately with the participants' descriptions of their experiences by frequently reverting to the confirmation and clarification of the data (Clarke and Braun, 2013). Lastly, I used existing literature, the conceptual framework, and the theoretical framework to guide analysis in this study. I discussed the findings in Chapter Five. This process gave me a linkage between the analytic narrative and themes extracted from the data.

4.8 Ensuring Trustworthiness

Trustworthiness refers to the confidence that the findings are plausible and reliable (Petty et al., 2012). According to Shenton (2004), four criteria must be considered in qualitative research to ensure trustworthiness: credibility, transferability, dependability and confirmability. This study ensured credibility by using triangulation, where the two methods of collecting data (interviews and FGDs) were used to strengthen the study (Rule & John, 2011). These approaches served in the verification of the findings (Nowell et al., 2017). As the primary researcher, I was present throughout the data generation. The time spent at the research site is considered good practice in qualitative research because it improves the trustworthiness of the study (Case, Dyson & Campbell, 2009). Being at the research site assisted me in observing the College community in which the participants are studying and working. I ensured the findings emerging from the data reflected the experiences and views of the participants instead of displaying the character and preferences of the researcher (Shenton, 2004).

4.9. Ethical Consideration

According to Cohen et al. (2018), research ethics involve those steps taken by the researcher to ensure that the rights of the participants are respected, upheld, and protected. To conduct ethically sound research and protect the rights of the participants, there were ethical steps followed. First, the study received full ethical approval from the University of KwaZulu-Natal's Humanities and Social Sciences Research Ethics Committee (HSSREC: Protocol Number HSSREC/00005057/2022) (see Appendix A). Second, I sought gatekeeper approval

for conducting the research among students and lecturers, which was granted by the Principal of the Far Ekurhuleni TVET College (Appendix D).

The participants in the study were adults aged 18-59 years old, which meant that legally, they did not require their parents' or guardians' consent to participate in the study. The nature, focus and purpose of the study were shared with the participants, after which they were requested to participate. Upon agreeing to participate in the study, each participant was asked to formalise their consent by signing a consent form (Appendix B). Participants were also informed that their decision to withdraw from the study at any point or stage would not be held against them. The consent letter was issued to the participants to provide them with a record of the research nature, focus, purpose and expectations of the study, which the participants had provided in the consent form.

Secondly, I considered non-maleficence (Jankowski, 2014), which requires the researcher to ensure that the participants experience no harm arising from their participation in the research. To ensure anonymity and to protect the participants from harm, the confidentiality of their responses and identities was ensured through the use of pseudonyms, which the participants chose. In addition to this, the participants were informed that the information they provided would only be used for research purposes. Moreover, I considered the fact that all research ought to uphold the aim of achieving positive consequences (Cohen *et al.*, 2018). Participants were comfortable in sharing their views and narrating their experiences on their terms.

4.10. Chapter Synthesis

This chapter has provided a detailed description of the research design and methodological approach, as well as the methods that were used to generate data that would address the research questions. The chapter has given details about several issues, including the sampling methods, details where the study was conducted, who the participants were, how the data was generated and analysed, as well as the discussion about issues of ensuring the trustworthiness of the findings and ethical consideration.

The next chapter will discuss the findings of the study.

CHAPTER FIVE

RESEARCH FINDINGS AND ANALYSIS

5.1 Introduction

As discussed in Chapter One, the study reported in this dissertation examined the teaching and learning experiences of TVET College lecturers and students during the height of the COVID-19 national lockdown. The previous chapter detailed the research design, methodology, and approach used to generate data. This chapter presents findings that address the two research questions posed in this study: 1) How do TVET College lecturers and students describe their experiences of teaching and learning during the height of the COVID-19 national lockdown? and 2) What teaching and learning-related challenges and opportunities did TVET College lecturers and students encounter during the height of the COVID-19 national lockdown? Data analysis was informed by the Protection Motivation Theory, an interaction framework useful for analysing teaching and learning experiences during health-related pandemics (Plotnikoff et al., 2010). The research findings are organised around several key themes that emerged from the analysis. First, I discuss how the participants adjusted to engaging in teaching and learning activities at home, given the strict lockdown restrictions that limited physical contact on campus. Second, and tied to the first theme, I discuss how students perceived learning from home negatively, as disruptive. Third, I present findings on the lecturers' perspectives of students who were 'forced' to learn from home. Fourthly, I focus on the participants' experiences with using digital online modes of teaching and learning. In particular, in theme four, I discuss how both lecturers and students found the use of WhatsApp (a social media application) limiting for teaching and learning. Next, I discuss the complexities of emergency blended teaching and learning during the COVID-19 lockdown, focusing on three challenging elements: a) timetable changes, b) rotational learning, and c) a rushed syllabus. Finally, I discuss findings related to the teaching and learning opportunities that the pandemic presented. The chapter concludes with a critical discussion of these findings.

5.2 Adjusting to Teaching/Learning from Home

In response to President Cyril Ramaphosa's announcement of a national shutdown to mitigate the spread of COVID-19, South African higher learning institutions suspended on-campus

activities. This necessitated lecturers and students from TVET College to engage in teaching and learning activities from their homes. This section explores how lecturers and students experienced remote education.

5.2.1 "My home environment is not good": Adjusting to Learning from Home

During the COVID-19 pandemic, students encountered significant challenges adapting to remote learning from their homes. Data analysis from this study highlighted various difficulties faced by student participants in this new educational context. Foremost among these challenges was the struggle to maintain concentration and academic focus outside the structured environment of campus life. Mathabo, for instance, expressed her difficulty in focusing on mathematics assignments without direct guidance from her lecturer:

"I couldn't concentrate when I was alone, especially for Maths when work was sent, and we were expected to work on our own. I needed Sir (lecturer) to explain (the work) to me. I couldn't study using a phone." (Mathabo, student, 22 years, NCV L4)

Similarly, Atlegang and Sbu described their challenges due to their home environments:

"I understand better during face-to-face (classes). (At home) I couldn't follow the instructions. I would do my assignment and after I had submitted it, my lecturer would say 'It is wrong.' That affected me a lot. That time it was already (submitted) late, and I received very low marks." (Atlegang, student, 23 years, NCV L4)

"I share a room with three of my cousins. We are all orphans and staying with our grandmother. It is always difficult for me to wake up and study while my cousins are asleep. It was worse during the lockdown because everybody was at home and studying and concentrating was impossible." (Sbu, student, 20 years, R191 N4).

These accounts illustrate the profound impact of home environments on students' ability to engage effectively with their studies, emphasizing the loss of the structured classroom environment and face-to-face interactions with lecturers.

Furthermore, gender dynamics and household expectations exacerbated these challenges. Hile articulated the increased workload expectations at home compared to campus life:

"I have become a chef, which reveals deep struggles of what it takes to be a student in a home environment, particularly for a girl child." (Hile, student, 18years, R191 N4)

Zoey echoed similar sentiments about household responsibilities interfering with her studies:

"Home is not a good environment to study. While you are trying to focus on your studies, they (adults in the family) instruct you to do house chores. Our parents expected us to clean, cook, and take care of the children... I was sent to the shops... There was no support from our parents and our lecturers didn't understand." (Zoey, student, 21years, NCV L4)

These narratives underscored the traditional gender roles and societal expectations that imposed additional burdens on female students, impacting their academic performance and mental well-being.

Moreover, the data highlighted how household chores and distractions further disrupted students' learning at home. Procrastination and technological distractions, such as television and social media, were prevalent:

"At home, I watched a lot of TV. I spent more time watching TV and creating social media content. When I felt tired of watching TV, I took naps because I was bored." (Hlogi, student, 20 years, R191 N4)

"Maybe I will be labelled as a foodie ha, ha, ha (laughter), every time I went to the kitchen, I grabbed something to eat. Instead of concentrating on my work, I would think of what I could eat. Then I would end up sitting in front of the TV with my food. It became difficult to stop watching TV. I would end up changing channels, watching one thing after the other, then my day is wasted, and then I would feel tired and sleep." (Snowie, student, 21 years, R191 N4)

These excerpts reveal how the absence of a controlled learning environment led to increased distractions and reduced productivity among students, impacting their academic outcomes. Applying the Protection Motivation Theory (PMT) to these findings, it becomes evident that the student's responses and behaviours were influenced by both perceived threats (e.g., academic failure, increased responsibilities at home) and coping mechanisms (e.g., procrastination, distractions) in their home environments. PMT posits that individuals are

motivated to protect themselves from perceived threats through adaptive behaviours, such as seeking social support or altering their study environment. In this context, students' struggles to concentrate and manage academic tasks from home can be seen as efforts to cope with the stressors imposed by the pandemic and household expectations. The findings discussed in this section illuminate the multifaceted challenges students face during remote learning from home. It underscores the need for educational institutions and policymakers to consider the diverse socio-economic and gendered dynamics that impact students' learning environments. By understanding these challenges through frameworks like PMT, interventions can be tailored to support students effectively during crises, ensuring equitable access to education and promoting academic success

5.2.2. “We worked under stressful conditions”: Adjusting to teaching from home

The shift to remote teaching during the COVID-19 pandemic posed substantial challenges for lecturers, particularly in fields reliant on practical, hands-on learning experiences. Educational continuity during emergencies, such as the pandemic, often hinges on basic technological access (Landa, Zhou & Marongwe, 2021). Ortiz (2020) underscored the difficulties in delivering laboratory and workshop content, crucial in Technical and Vocational Education and Training (TVET), through online modalities. This is because practical skills are typically acquired through hands-on experience in campus-based workshops or workplace settings (Hoftizer et al., 2020). Furthermore, programmes involving lab-based research, clinical training, and experiential learning did not easily translate to online formats (Du Plessis et al., 2022).

Analysis from this study revealed that both lecturers and students faced significant barriers due to students' lack of access to necessary technological resources at home. A lecturer highlighted these challenges, particularly in subjects requiring computerized tools:

"For me, teaching computerized subjects was extremely challenging. Students needed to practice using computers, which they didn't have at home. We couldn't simply instruct them to 'Open your computers and do this or that'. Without access to the required resources, practical aspects of the curriculum suffered, and we had to await the relaxation of COVID-19 restrictions to resume face-to-face interactions." (Simphiwe, lecturer, female, 29 years)

Simphiwe's account underscores how the absence of technological resources hindered effective teaching and learning, disrupting communication between students and educators and impeding understanding of the subject matter. Moreover, discussions among educators highlighted shifts in student attitudes and behaviours during remote learning, exacerbated by the perception of learning from home as a vacation period:

"Another challenge was their (students') attitudes during the COVID-19 lockdown. They thought that they were on holiday. Students were not willing to go the extra mile, so we (lecturers) had to work around their attitude first before we could achieve any progress." (Thabo, lecturer, male, 31 years)

Thabo's observation aligns with studies indicating that remote learning can amplify student challenges such as lack of motivation, discipline, and a conducive learning environment (Brazendale et al., 2017). These factors were compounded by the inability of some students to access required learning materials and licenses for specialized software, essential for subjects like Computerized Financial Systems.

The dependency of remote learning on technological equipment became a glaring issue, particularly for students from low socio-economic backgrounds who lacked access to broadband and computers. Without these resources, participation in practical components of the TVET curriculum was severely limited:

"It was difficult for us as computer lecturers to conduct off-campus teaching because students didn't have laptops and data. Despite promises of government support, including laptops and data, many students remained without essential tools for learning." (Oscar, lecturer, male, 47 years)

Oscar's frustration highlights broader systemic challenges identified by UNESCO (2020), which reported significant disparities in access to digital resources across sub-Saharan Africa. The emotional toll of these disparities was palpable among educators, as expressed by Mahlatse:

"We worked under really stressful conditions. Accessing technology was simply not feasible for many students. Only a handful had computers at home, and they were the fortunate ones who managed to navigate these challenges successfully." (Mahlatse, lecturer, 32 years)

These findings underscore the critical role of face-to-face teaching in TVET settings, where remote learning was a novel and largely untested approach for both students and educators. Research indicates that face-to-face interaction fosters better student engagement, emotional expression, and peer relationships critical to learning (Holmes & Reid, 2017; Tingstad, 2019).

Applying the Protection Motivation Theory (PMT) to these findings, it becomes evident that both perceived threats (e.g., lack of academic progress, technological barriers) and coping responses (e.g., adapting teaching methods, awaiting resumption of face-to-face classes) influenced lecturers' and students' experiences during remote learning. PMT posits that individuals are motivated to protect themselves from perceived threats through adaptive behaviours, which in this context, include efforts to overcome technological and motivational barriers to effective learning. The findings reported under this theme highlight the complexities and inequalities exacerbated by the shift to remote teaching during emergencies like the COVID-19 pandemic. Addressing these challenges requires comprehensive strategies to bridge digital divides, support educators in adapting teaching methodologies, and ensure equitable access to quality education, particularly in practical disciplines like TVET.

5.3. Moving into The Digitised (Virtual) World

The onset of the COVID-19 pandemic necessitated the transition of teaching and learning experiences to online digital and virtual platforms. This shift presented numerous challenges for both educators and students, as detailed in the sub-themes below

5.3.1. “Talking to Myself”: Teaching through Virtual Spaces

The transition to online teaching during the COVID-19 pandemic presented significant challenges for lecturers' who were accustomed to traditional classroom settings. For many lecturers, the shift required not just a transcriptional change, but a translational one involving the adoption of new digital tools and methodologies (Ortiz, 2020). Moawad (2020) emphasises that the success of online education hinges on adequate faculty training in digital tools and effective course design. However, Du Plessis et al. (2022) found that many lecturers lacked training and familiarity with online teaching platforms, exacerbating the difficulties.

One lecturer, Themba, reflected on the initial struggles faced due to inadequate preparation:

"It was the first time that we experienced this (remote teaching). We were used to face-to-face contact. So, we didn't know how to do e-learning, we were never trained on how to do it, then they (management) would want us to have meetings via Zoom or Microsoft Teams, during that time we didn't have an idea what they were talking about, how to download it, how to have those meetings, it was like everyone for themselves but we were expected to deliver." (Themba, lecturer, male, 59 years)

Themba's experience underscores the profound impact of the digital divide and the lack of preparedness among lecturers for online teaching. This unpreparedness extended to alternative platforms like WhatsApp, which some institutions suggested for teaching purposes. Mahlatse, for instance, struggled with engaging students effectively through WhatsApp:

"We were advised by management to communicate with students through WhatsApp. I didn't have the skill to teach or engage students in the form of teaching on WhatsApp groups. It was something I had never done before, and I didn't know where to start, or how to explain lessons within a 'blind spot' where I didn't see my students." (Mahlatse, lecturer, female, 32 years)

The limitations of using WhatsApp for educational purposes further highlighted the disparities in digital literacy and access among lecturers and students. The frustration was palpable among educators like Maureen, who faced significant challenges in fostering student engagement:

"I would send pictures and voice notes and only 2 or 3 people would respond. I was talking to myself. Each day I explained a topic and the response was very low, even in terms of submitting the work. In the end, I also just gave up because it was not yielding any results." (Maureen, lecturer, female, 40 years)

Maureen's experience mirrored broader concerns identified by Xia et al. (2022), who highlighted students' unfamiliarity with online systems, lack of confidence, and technical issues as barriers to effective online learning. Moreover, socio-economic factors compounded these challenges, particularly for students from disadvantaged backgrounds who lacked reliable internet access and digital devices.

Despite promises from educational authorities to support students during the pandemic, practical challenges persisted. Fifi, another lecturer, shared her frustration:

"I used to take a video of myself teaching and send it to the WhatsApp group. The response I used to get from students would be the video is too long we don't have data to download it. In the end, you put the work out there but don't get the results." (Fifi, lecturer, female, 36 years)

The inability to effectively utilize digital platforms for teaching underscored the complex realities faced by lecturers and students alike. The abrupt shift to online education revealed systemic gaps in digital infrastructure and highlighted the need for comprehensive support and training for educators.

The challenges encountered in the transition to online teaching during the pandemic were multifaceted, ranging from technological limitations and inadequate training to socio-economic disparities among students. These findings underscore the critical importance of equipping educators with the necessary tools and skills to navigate virtual learning environments effectively in times of crisis and beyond.

5.3.2. “*Online learning disturbs you*”: The Impact of WhatsApp on Online Learning Experiences

The COVID-19 pandemic necessitated a rapid shift to online learning, with platforms like WhatsApp becoming prominent tools for educational communication. However, the use of WhatsApp for teaching and learning purposes presented both benefits and challenges, as articulated by students in focus group discussions. Moshe, a 21-year-old student, highlighted the interpersonal challenges he faced with WhatsApp as a learning tool:

"Students are not the same. Some of us are slow and some are fast. When Mam was explaining the assignment on WhatsApp, I wished I could see her because I understand better when I keep eye contact. I was also scared to ask questions on the WhatsApp group because (the lessons) were purely in English. Some students tease you if you don't speak or write good English." (Moshe, student, 21 years, R191 N4)

Moshe's experience underscores the limitations of remote learning via WhatsApp, where the lack of visual cues and real-time interaction affected his understanding and confidence in participating. Similarly, Thapelo, a 22-year-old student, lamented the lack of emotional connection:

"Sometimes when lecturers send us work using WhatsApp, they don't explain it thoroughly as they would do during a face-to-face meeting. It is more like they took advantage of not seeing us, therefore, all of us should understand what they are saying. It is better face to face because even our reaction such as silence will indicate to the lecturer that we are lost." (Thapelo, student, 22 years, R191 N4)

Thapelo's perspective emphasises the importance of non-verbal communication and immediate feedback, which are integral to effective learning experiences but are often compromised in virtual settings like WhatsApp. Kabelo, a 20-year-old student, pointed out practical challenges related to learning engagement and distractions:

"In class, lecturers write on the board, and they explain to us (students). In the case of Maths, we can follow the steps. On WhatsApp, they just talk because there is no interactive board. WhatsApp doesn't show who is actively listening at that time when the lecturer is teaching, some login and go on with their domestic chores, it will only show when the lecturer is asking questions that very few students if any at all are concentrating." (Kabelo, student, 20 years, R191 N4)

Kabelo's observation reflects the difficulty in maintaining student focus and active participation in virtual classrooms, where the absence of visual cues and accountability may lead to reduced learning efficacy. Atlegang, a 23-year-old student, expressed concerns about the dual role of WhatsApp as both a learning tool and a social platform:

"Online learning especially WhatsApp disturbs you, friends are also sending other things, and you can't concentrate and just stick to the work that lecturers were sending. I used to end up reading other messages which would take my time to study. It is better when you are on Campus doing face-to-face, there is no time to go into WhatsApp." (Atlegang, student, 23 years, NCV L4)

Atlegang's perspective highlights the potential distractions posed by WhatsApp's social features, which may detract from dedicated academic focus and contribute to diminished learning outcomes.

While WhatsApp offers advantages such as immediate communication and connectivity, its suitability as a primary educational tool is debated. Research by Yilmazsoy et al. (2020) suggests that while WhatsApp facilitates rapid and affordable communication, its unintended

use for non-academic purposes can undermine its educational efficacy. Munir et al. (2021) further point out that disparities in smartphone access and message overload can limit the effectiveness of WhatsApp for academic purposes.

While WhatsApp provided a lifeline for educational continuity during the pandemic, its role in fostering meaningful educational interactions remains contentious. The challenges highlighted by students underscore the need for balanced strategies that leverage technology while addressing the inherent limitations and distractions associated with platforms like WhatsApp in educational contexts. Efforts to enhance digital literacy among both educators and students, coupled with clearer guidelines for educational use, are essential to maximizing the potential benefits of digital platforms in future educational scenarios.

5.3.3. “Wi-Fi, smartphones and poor network”: Remote Learning Challenges in Socioeconomic Contexts

The transition to online learning during the COVID-19 pandemic exposed significant disparities in access to technology and internet connectivity among students, exacerbating existing socioeconomic inequalities. Participants in the study voiced their struggles with inadequate resources, hindering their ability to engage effectively in remote education. Thapelo, a 22-year-old student, highlighted how lack of access to smartphones and data affected his learning:

"The challenge was experienced a lot by those of us who don't have smartphones and data. Some of us did not get the work, because we didn't have the right phones. Like me, I use a *popopo* (a small cheap phone with limited apps)." (Thapelo, student, 22 years, R191 N4)

Thapelo's experience underscores the stark digital divide where students from disadvantaged backgrounds lack the necessary technological tools to participate fully in online classes. Marcia, a 19-year-old student, shared the financial hardships her family faced, affecting her ability to afford data for online learning:

"Home is not a conducive environment. My mother is not working; she could not afford to buy me data. I had to hustle to get money for data. I couldn't write and submit assignments and marks were deducted from me. Some lecturers simply refused to accept the assignments hence I failed the year." (Marcia, student, 19 years, NCV L4)

Marcia's story highlights how socioeconomic factors compounded the challenges of online learning, resulting in academic setbacks and failures due to the inability to meet digital requirements. Tumi, a 19-year-old student, illustrated the lengths some students went to access the internet:

"Me and my friends used to sit outside the parameter fence of our community library to access Wi-Fi because the library was also closed. My parents knew that every afternoon I would go, sit there, download all the work and come home to continue working. That library Wi-Fi assisted us a lot." (Tumi, student, 19 years, R191 N4)

Tumi's experience reflects the resourcefulness of students in overcoming barriers to online learning, even resorting to unconventional methods like accessing Wi-Fi from closed public facilities. Kabelo, a 20-year-old student, faced geographical challenges with poor network connectivity in his rural village:

"I went back to be with my parents in rural Limpopo, our village is surrounded by mountains and hills with a poor cell phone network. For me to access WhatsApp I was forced to climb on a hill to receive messages. It is not safe for me as a girl to be sitting at the hill, I am scared to be followed by naughty boys." (Kabelo, student, 20 years, R191 N4)

Kabelo's account underscores the safety risks and geographical limitations that further marginalised students faced in accessing online education, compounding their learning challenges. The reliance on technological equipment for online learning highlighted systemic issues in educational institutions. Participants criticized the lack of support and preparedness from their college:

"The college did not support us at all. Students did not receive data and laptops yet we were told lecturers would continue to assist us from home. What's the point of pursuing to save academic year when there are no resources available for students." (Mathabo, student, 22 years, NCV L4)

Mathabo's frustration reflects a broader sentiment among students about the inadequacies in institutional support and resource allocation during the shift to online learning. Moreover, lecturers also expressed dissatisfaction with the administrative response and lack of preparation from college management:

"I felt like the College was more focused on admin than supporting us. We will receive instructions to submit evidence of the work we have done with the students but no support on how to do the work. The College academic unit did not check whether we were coping or not, at that time we were not given any resources, we were using our phones and data and we were told to use our transport money to buy data." (Kay, lecturer, female, 38 years)

Kay's critique highlights the disconnect between administrative priorities and the practical needs of educators and students during the transition to remote learning. The challenges outlined by participants underscored the critical need for equitable access to technology and supportive institutional policies to mitigate the disparities exacerbated by the COVID-19 pandemic. Addressing these issues requires proactive measures from educational institutions and policymakers to ensure that all students have equal opportunities to engage in effective online learning, regardless of their socioeconomic background or geographic location.

5.4. The Timetable and Syllabus in the Context of COVID-19

The findings indicate that the TVET College employed blended learning as a strategy to mitigate the impact of COVID-19 restrictions. This approach, confirmed by existing literature (Gedik & Kiraz, 2012, as cited in Mashao & Nyawo, 2021), underscores the value of blended learning in managing large classes through digital tools such as learning management systems for automated assessments and feedback. However, participants noted that the learning quality suffered due to the alternating attendance schedule, where students could only physically attend on certain days.

Blended learning, defined by Singh et al. (2021) as integrating face-to-face and online learning, emerged as a crucial tool to salvage the academic year for TVET Colleges. The implementation involved platooning timetables, with limited in-person sessions complemented by remote teaching via platforms like WhatsApp. Participants highlighted the challenges of combining platooning timetables with home-based blended learning. These complexities were further articulated by participants' experiences:

"Afternoon classes suffered the most because of transport issues. Because rotation was every week, morning classes were attended the most although the first period suffered. Afternoon classes, which ended at 6 p.m., were poorly attended. Students just didn't attend those classes" (Kay, lecturer, female, 38 years).

"It was frustrating when as a lecturer you had to repeat the same content over and over again with different groups. It was tiring and I also lost track of what I wanted to teach" (Themba, lecturer, male, 59 years).

Timetabling complexities exacerbated by the pandemic were evident, with hybrid teaching modes requiring new timetabling approaches (Witten, 2020). Post-lockdown, the College introduced a revised timetable allowing limited face-to-face contact through platooning, where small groups of students rotated campus access. Simphiwe described these challenges:

"The challenge was covering the whole syllabus. We complained about time lost. Students were on campus Monday to Wednesday, and then you would only see them again the following week on a Tuesday. Then for the practical subjects, if ever they spent 5 days without seeing or touching a computer, by the time they returned to Campus, rest assured, you were going to start teaching from scratch" (Simphiwe, lecturer, female, 29 years).

The discontinuity in contact time posed significant challenges for lecturers in progressing through the syllabus, as highlighted by Muntu and Lesedi:

"With platooning timetable, and that issue of dividing students into Groups A & B, it was taking forever to finish the syllabus, since we could only have face-to-face contact sessions with the students for only 3 days per week. A chapter that could be finished in 2 to 3 hours took 7 days, so the time was reduced, the days were reduced but we were still expected to finish the whole syllabus to prepare students for exams" (Muntu, lecturer, male, 29 years).

"With that platooning we became inhumane; all we were thinking about was to push the syllabus meanwhile you are sitting in front of a student whom you can see that they are dealing with a lot. When I greeted them there was not even time to crack a joke to make them relax a bit, everything was done in a rush. We could not even offer them support even though I was aware that their situation was worse. Students would even hide the fact that they have a family member who tested positive for fear of being judged and the risk of not being allowed in class" (Lesedi, lecturer, male, 35 years).

The introduction of rotational learning negatively impacted attendance, progression, retention, and certification rates. Students struggled with inconsistent attendance and retention of covered

content due to disjointed learning schedules, aligning with Ximba's (2021) findings on disruptions affecting learning outcomes. Indeed, while blended learning and platooning timetables were critical adaptations during the pandemic, they posed significant challenges for both educators and learners. The findings underscore the importance of cohesive scheduling and holistic support systems in maintaining educational quality during crises, aligning with the Protection Motivation Theory's emphasis on addressing perceived threats and promoting adaptive behaviours in challenging circumstances.

5.5. Navigating the Educational and the Social

The research underscores that female college students, particularly those from disadvantaged socio-economic backgrounds, faced heightened risks of disengagement from their studies due to COVID-19 disruptions.

Mam (lecturer) used to say all of us should avail ourselves at 1300 for a class. While she is teaching, the child cries or something disturbs you in the background, by the time she asks questions, only one person can answer. If it was face-to-face all of us would be able to focus without any domestic interference (Atlegang, student, 23 years, NCV L4).

Home is not a good environment to study. While I was trying to concentrate on my studies, my mother would instruct me to do house chores with my sisters, when I told her that I was busy with schoolwork, she yelled and accused me of being lazy, when I fail I am still accused of being lazy. She doesn't understand that I am home because of COVID-19 restrictions but I am still a student even though I am home. (Marcia, student, 19 years, NCV L4)

This study focused on understanding student behaviours within the contexts of platooning and hybrid learning, revealing vulnerabilities exacerbated by these educational adaptations. According to Stats SA (2019), factors such as low family socioeconomic status, household responsibilities, and long commuting distances disproportionately affect female students in South Africa, contributing to higher dropout rates. This correlation was echoed in the experiences shared by lecturers:

"We are teaching students who have children, they were expected to fetch their children from the crèche in the afternoon and cook for them and they couldn't attend afternoon classes" (Lesedi, lecturer, male, 35 years).

"Some of them travelled for over an hour by taxi. For a class that will end around 1800 in winter, they simply did not stay to attend. For the first period, we encountered late coming because they travel with taxis, and they will complain about the long queues at the taxi rank and also taxis taking the industrial routes because some people are commuting with them going to work. The attendance was not good" (Muntu, lecturer, male, 29 years).

"Absenteeism rate started soaring because students were not used to late afternoon classes. This became a challenge with students who were residing outside campus as they had to use public transport to commute back home. Still, there was an issue with the morning periods which used to be earlier than usual to accommodate the afternoon groups" (Thabo, lecturer, male, 31 years).

These accounts highlight challenges such as childcare responsibilities, long commuting times, and scheduling conflicts, which were exacerbated by the rotational timetables introduced during the pandemic. Lecturers also expressed frustrations regarding attendance and reduced contact time without corresponding adjustments to the syllabus. The lecturers' challenge was around attendance and the reduced contact time whereas no alterations were made to the syllabi. Ximba (2021) argued that rotational timetables also slow down learning. As seen in the extracts above the students and lecturers were equally frustrated and some alluded that they struggled to cope with reduced contact time to cover the syllabus which was not reduced.

This evidence underscores the critical need for flexible and supportive educational policies that consider the socio-economic realities of students, especially during disruptive events like the COVID-19 pandemic. Addressing these challenges requires holistic approaches that mitigate barriers to attendance and support both students and educators in achieving educational goals effectively.

5.6. Paying the Cost: Academic Failure in the Time of COVID-19

Research by Vicario et al. (2024) highlights how the COVID-19 pandemic detrimentally affected academic assessments, particularly in face-to-face settings, with a noted decrease in pass rates compared to pre-pandemic periods. This impact was vividly illustrated through the personal experiences shared by participants in the interviews:

"There was no second chance given for reassessment, even though the majority in the class failed, we were not reassessed which is why we did not qualify to sit for exams in most subjects. You failed you failed; you must come back next year. Some lecturers would mock us and say go and save R1400 for part-time class, it was painful" (Modiegi, student, 22 years, R191 N4).

"Now I am here for the 4th year instead of just completing in 3 years. Some of our friends dropped out because they forfeited their bursary" (Atlegang, student, 23 years, NCV L4).

These narratives underscore the profound and lasting impact of the pandemic on academic trajectories and personal well-being. The study reveals that the repercussions of COVID-19 will endure for many individuals due to the sacrifices made in pursuit of academic excellence. Both students and lecturers alike experienced a range of emotions because of these challenges, highlighting the significant toll on their social-emotional health and well-being. The participants' accounts provide valuable insights into the broader implications of the pandemic beyond academic outcomes, emphasizing the need for compassionate and flexible educational approaches that support the holistic needs of students and educators during times of crisis. This research contributes to understanding how the COVID-19 pandemic has not only disrupted educational pathways but also profoundly affected the lives and futures of those involved, leaving a lasting imprint on their personal and academic journeys.

5.7 Resilience and Adaptation in Education During the COVID-19 Pandemic

Despite the numerous challenges highlighted by the participants, there were unexpected positive outcomes during the COVID-19 pandemic, as noted by Nelson (2020). Movement restrictions led to a significant reduction in crime rates, fewer car crashes, and a decline in other

infectious diseases in hospital emergency departments. Participants also pointed out some personal benefits amidst the difficulties:

"We felt safe at home, we were indoors, no fear of infection and we saved on daily transport money to come to the Campus" (Sbu, student, 20 years, R191 N4).

"The special COVID-19 grant of R350 that the government introduced for the unemployed was of great assistance. NSFAS also continued to pay us even though we were at home. We were using NSFAS money to assist at home because breadwinners lost jobs. I even managed to buy winter clothes for myself and my siblings" (Kabelo, student, 20 years, R191 N4).

"I was relaxed about keeping up with technology thinking that I am going to retire soon. COVID-19 left me with no choice but to keep abreast with technology. Now I understand the 4th industrial revolution" (Themba, lecturer, male, 59 years).

In addition to personal benefits, participants highlighted positive shifts in education:

"Inclusive education was implemented whereby we moved from traditional face-to-face to blended learning which was inclusive of technology. Now we can do online lessons, utilise WhatsApp as a teaching and learning tool, record videos and share with our students" (Simphiwe, lecturer, female, 29 years).

"Students are now used to online classes, we are continuing to send them to work on WhatsApp and they are submitted timeously. They are now used to technology" (Khulu, lecturer, male, 31 years).

"The College also supported us at a later stage we were given laptops and data which we are still using. We are moving with technology; I am even teaching classes that are not allocated to me this year. Some parents also invested in buying computers for their children. They are no longer reliant on face-to-face only" (Fifi, lecturer, female, 36 years).

While acknowledging the adverse effects of the pandemic on teaching and learning experiences, these findings highlight resilience and adaptation among students and educators. The shift towards inclusive and technology-driven education represents a significant

transformation necessitated by the pandemic, with implications for future educational practices.

The Protection Motivation Theory (PMT) posits that individuals are motivated to protect themselves from perceived threats through adaptive behaviours. In the context of the COVID-19 pandemic, this theory applies to understanding how students and lecturers responded to the challenges posed by the crisis. Firstly, the pandemic was perceived as a significant threat to traditional educational practices, necessitating swift adaptations to ensure continuity in learning. Participants recognised the risks associated with in-person attendance and responded by embracing technologies that allowed for remote and blended learning. Secondly, participants employed various coping strategies to mitigate the threat and adapt to the new educational landscape. For instance, educators and students alike embraced technology-enabled teaching and learning methods, such as online classes and digital communication tools like WhatsApp. This adaptation not only ensured educational continuity but also enhanced their ability to cope with the challenges posed by the pandemic. Thirdly, the adoption of inclusive and technology-driven educational approaches exemplifies adaptive behaviours in response to the perceived threat of disrupted learning environments. Educators became proficient in delivering content through digital platforms, while students adjusted to new modes of engagement and submission of coursework. Despite the adversities they faced, participants identified unexpected positive outcomes from the pandemic. These included personal benefits such as safety at home, financial support from government grants continued NSFAS payments, and enhanced technological literacy. These positive outcomes served as reinforcement for their adaptive behaviours and resilience in navigating the crisis. Finally, the experiences shared by participants underscored the resilience and adaptability within the educational sector. Moving forward, the integration of technology and flexible learning modalities will likely continue to shape educational practices post-pandemic. This shift highlights the importance of proactive measures in education policy to support adaptive behaviours and ensure educational continuity in the face of future crises.

Applying the Protection Motivation Theory to the theme of resilience and adaptation in education during the COVID-19 pandemic provides a comprehensive framework for understanding the responses of students and lecturers. It emphasises the role of perceived threats, coping mechanisms, adaptive behaviours, and positive reinforcement in shaping educational practices amidst crises.

5.8. Discussion

The findings from this study reveal the multifaceted challenges and adaptive behaviours exhibited by TVET College lecturers and students during the COVID-19 lockdown, analysed through the lens of Protection Motivation Theory (PMT). PMT provides a robust framework for understanding the motivations behind adaptive behaviours in response to perceived threats, such as the abrupt transition to remote learning necessitated by the pandemic. One major finding is the significant disruption to traditional educational practices, with both students and lecturers perceiving the pandemic as a substantial threat that required immediate action. The swift shift to remote and blended learning models underscores the participants' recognition of the risks associated with in-person attendance. The adaptation to these new learning modalities, including the widespread use of digital communication tools like WhatsApp and online classes, highlights a key aspect of PMT: the role of coping strategies in mitigating perceived threats. This adaptation not only ensured the continuity of education but also enhanced participants' technological proficiency, which is seen as a long-term benefit.

Another critical aspect of the study is the diverse coping mechanisms employed by both students and lecturers. Educators adapted by becoming proficient in digital platforms, while students adjust to new modes of engagement and coursework submission. This aligns with PMT's assertion that individuals respond to threats with adaptive behaviours aimed at minimising risk. The adoption of inclusive and technology-driven educational approaches exemplifies these adaptive behaviours, demonstrating resilience and the capacity for change in the face of adversity. However, the transition was not without significant challenges. The study highlights the profound impact of the home environment on students' ability to engage with their studies effectively. Many students faced increased household responsibilities and distractions, which impeded their academic performance and mental well-being. This is particularly evident in the narratives of female students who had to balance academic work with traditional gender roles and household chores. Such findings illustrate the PMT concept of perceived threat, where the stress of academic failure and increased domestic responsibilities acted as significant stressors.

Lecturers, too, faced substantial challenges, particularly in delivering content that traditionally relies on hands-on learning experiences. The lack of access to necessary technological resources at home further exacerbated these difficulties, highlighting the digital divide that

exists within educational systems. The PMT framework helps to understand these challenges by emphasizing the coping responses of educators, such as adapting teaching methods and awaiting the resumption of face-to-face classes to ensure educational continuity.

Moreover, the study reveals the resilience and adaptability within the educational sector, with participants identifying unexpected positive outcomes from the pandemic. These include personal benefits such as safety at home, financial support from government grants, and enhanced technological literacy. These positive outcomes can be seen as reinforcement for the adaptive behaviours and resilience exhibited by students and educators, aligning with PMT's concept of positive reinforcement in shaping behaviours.

The findings also underscore the critical role of Employee Wellness in providing psychosocial support during pandemics. The pervasive fear of infection and potential mortality significantly influenced lecturers' behaviours in conducting lessons. In this context, the data analysis revealed that the TVET College was inadequately prepared to respond swiftly and effectively to support lecturers in navigating the challenges posed by the COVID-19 pandemic. Furthermore, the findings indicated that heightened anxiety levels among students resulted in diminished motivation, which was closely linked to concerns regarding their academic, social, and economic well-being. Additionally, lecturers reported experiencing increased stress due to heightened workloads and disrupted routines.

Finally, the findings underscore the need for proactive measures in education policy to support adaptive behaviours and ensure educational continuity in future crises. By applying the PMT framework, it becomes evident that both perceived threats and coping mechanisms significantly influenced the experiences of students and lecturers during the pandemic. Addressing these challenges requires comprehensive strategies to bridge digital divides, support educators in adapting teaching methodologies, and ensure equitable access to quality education, particularly in practical disciplines like TVET. This approach will not only enhance resilience in the face of future disruptions but also promote a more inclusive and adaptable educational environment.

In the next chapter, a discussion on Reflections, Implications, and Conclusion will explore these themes further, drawing insights from the experiences shared by participants and

considering the broader implications for educational policy and practice in post-pandemic contexts.

CHAPTER SIX

REFLECTIONS, CONTRIBUTIONS, IMPLICATIONS AND CONCLUSION

6.1 Introduction

The research presented in this dissertation originates from my tenure as a lecturer at a TVET College in Gauteng Province, South Africa. Having joined the Technical Colleges in the late 90s during a period of significant educational reforms following the end of apartheid, I witnessed first-hand the restructuring of the Further Education and Training (FET) College sector, which culminated in their rebranding as Technical Vocational Education and Training (TVET) Colleges in 2014 (Department of Education, 2001).

My career in the education sector, particularly as a Campus Manager, has deeply informed this study. As discussed in Chapter One, my interest stemmed from observing the profound impact of the COVID-19 pandemic on teaching and learning at the TVET College where I work. The sudden shift from traditional face-to-face instruction to remote online learning prompted me to investigate how this transition affected both lecturers and students. Moreover, my concern about the TVET Colleges' slow adaptation to technological advancements intensified during this crisis.

In preparation for this research, I delved into literature confirming that TVET Colleges were ill-prepared for the abrupt move to online learning (Allais & Marock, 2020; Ortiz, 2020; Hoftizer et al., 2020). Studies underscored challenges exacerbated by limited internet access, insufficient locally developed courses, and inadequate teacher training in technology (Ischebek, 2020; Mishra, Gupta & Shree, 2020; Moawad, 2020; Mseleku, 2020). Additionally, the literature highlighted myriad difficulties faced by students, including technological constraints, feelings of isolation, and lack of support networks (Azmat & Ahmad, 2022). Chapters Four and Five detailed the demographic composition of students at the TVET College in Gauteng, emphasising the prevalence of young people coming from under-resourced communities. As affirmed by Farooqui (2020) and the Council of Europe (2020), these students encountered significant barriers due to inadequate access to technology and poor online connectivity, thereby hindering their educational continuity.

Throughout this dissertation, my central argument has been the insufficient scholarly attention given to the voices of lecturers and students affected by the pandemic. Therefore, this study aimed to fill this gap by exploring their experiences during the COVID-19 lockdown. Specifically, it sought to elucidate the challenges and opportunities encountered in teaching and learning at a particular TVET College in Gauteng. The research questions guiding this study were:

- How do TVET College lecturers and students describe their experiences of teaching and learning during the COVID-19 national lockdown?
- What teaching and learning-related challenges and opportunities did they encounter during this period?

To address these questions, a qualitative approach was employed, involving semi-structured interviews and focus group discussions with 15 students and 12 lecturers from the TVET College. These methods were chosen to facilitate a nuanced understanding of participants' perspectives and experiences (Terre Blanche et al., 2006). This dissertation not only contributes to the empirical understanding of the impact of COVID-19 on TVET Colleges but also underscores the urgent need for comprehensive planning and support mechanisms to enhance resilience in educational delivery during crises. Future research should continue to amplify the voices of stakeholders in education, ensuring their insights inform policy and practice for more effective teaching and learning outcomes in diverse contexts.

6.2 Methodological Reflections

This study aimed to explore the experiences of lecturers and students regarding teaching and learning during the COVID-19 lockdown period. The literature underscores that traditional face-to-face teaching in TVET Colleges, which relies on physical classrooms, became untenable during pandemic outbreaks like COVID-19 (Mpungose, 2020). It is evident from the literature reviewed in this dissertation that TVET Colleges faced significant challenges in transitioning to online teaching due to inadequate technological infrastructure and resources (Masina & Mawonedzo, 2022). Recommendations from ILO (2020), UNESCO (2020) and the World Bank (2020) emphasise the importance of partnerships with public and private stakeholders to enhance distance learning capabilities, develop new training programs, and allocate additional resources to prepare for future pandemics.

In-depth interviews (IDI) and Focus Group Discussions (FGD) were chosen as appropriate methods to engage participants safely and gather rich qualitative data. Conducting this study from a qualitative perspective enabled a holistic understanding of participants' experiences in the COVID-19 epicentre, the Gauteng Province. IDIs allowed participants to share their experiences confidentially, while FGDs facilitated open discussions among peers who had shared experiences, thereby providing nuanced contextual insights.

Recruiting 15 students and 12 lecturers aimed to capture diverse perspectives and avoid assumptions in understanding both sides of the teaching and learning experience. However, despite the benefits of IDI and FGD in providing contextual data, several challenges and limitations emerged during data generation. For instance, changes in COVID-19 regulations in June 2022 mandated a return to full-time in-person classes at the TVET College, disrupting my interview schedule. I had to coordinate interviews around participants limited free periods and lunch breaks, often waiting for days when schedules aligned to conduct FGDs, resulting in smaller group sizes than initially planned. Another challenge arose from the preparation for mid-year examinations, which intensified academic commitments for both lecturers and students, further complicating scheduling. Additionally, the venue chosen by students for FGDs was occasionally noisy and distracting, requiring repeated questions for clarity but also fostering a relaxed environment conducive to free expression.

To manage these challenges, daily engagement was limited to five participants per day to maintain focus and adherence to schedules. Despite these constraints, the study successfully illuminated the experiences of lecturers and students during the heightened COVID-19 pandemic alert, debunking myths and providing valuable insights into the challenges and opportunities of teaching and learning in TVET Colleges in South Africa. Ultimately, this research contributes to a deeper understanding of the impact of the COVID-19 pandemic on TVET Colleges, aiming to inform future educational strategies and policies to enhance resilience and preparedness in similar crises.

6.3 Reflecting on the Findings

The findings of this study underline the profound challenges faced by both students and lecturers in adapting to teaching and learning outside the traditional classroom setting during the COVID-19 pandemic. It became evident that the transition to online education was fraught with uncertainties and revealed significant unpreparedness among TVET Colleges in South

Africa. Participants highlighted their struggles to maintain continuity in education amidst the backdrop of inadequate technological support, particularly in marginalised black communities where internet access was limited or non-existent (Masina & Mawonedzo, 2022).

A pivotal revelation from the analysis was the pervasive impact of socioeconomic factors on educational outcomes. Students and lecturers emphasised the stark disparity in access to online resources between suburban and rural areas, exacerbating inequalities in educational opportunities. The practical nature of subjects taught at TVET Colleges further compounded the difficulties, as the curriculum was ill-equipped for emergency remote teaching and lacked provisions for such contingencies. Lecturers, unfamiliar with remote teaching methods, described feeling pressured by college management to salvage the academic year, resorting to personal expenditures on data and using platforms like WhatsApp to maintain contact with students.

Moreover, the findings highlighted the detrimental effects of the digital divide, wherein students lacking access to adequate technology and internet connectivity faced insurmountable barriers to learning. This stark reality underscored the urgent need for comprehensive policies and infrastructural investments to ensure equitable access to education across all communities (Gore & Walker, 2020). Below, I discuss key findings addressing each of the research questions posed in this study.

6.3.1 Key Findings Addressing the Research Questions

- **Online Teaching and Learning in Unexpected Situations**

A significant finding was the profound impact of technological limitations on teaching and learning during the COVID-19 lockdown. Despite efforts to implement online platforms, both lecturers and students struggled with the abrupt shift from traditional face-to-face instruction. The Department of Higher Education and Training's (DHET) insufficient preparation for remote education exacerbated these challenges, leaving lecturers and students feeling overwhelmed and unsupported. Concerns were raised regarding the adequacy of training and resources, which significantly compromised educational continuity, particularly for those from disadvantaged backgrounds.

- **Complexity of Blended Learning and Platooning Timetable**

Participants also discussed the complexities introduced by blended learning models and platooning timetables. While mobile devices and internet connectivity offered flexibility, disparities in home environments posed significant challenges to effective learning. Many students faced disruptions at home that hindered their academic progress, such as caring for dependents or lacking necessary electronic devices. The findings underscored the critical role of supportive family environments in mitigating these challenges and emphasised the need for adaptable teaching strategies that accommodate diverse student circumstances.

Therefore, this study contributes valuable insights into the realities faced by TVET Colleges during the COVID-19 pandemic, shedding light on the systemic inequalities and structural barriers that affect educational outcomes. Moving forward, educational policymakers and institutions must address these findings by prioritising inclusive educational strategies and investing in robust technological infrastructures that ensure equitable access to quality education for all students, regardless of their socio-economic background or geographical location. This reflective analysis aims to inform future educational policies and practices aimed at enhancing resilience and fostering equitable educational opportunities in South Africa's TVET Colleges.

6.4 Contributions of the Study

Addressing the two research questions posed, this dissertation offers significant contributions to scholarly understanding. Throughout this dissertation, I have argued that while extensive literature exists on the broader impacts of COVID-19 on education, this research uniquely examined the specific experiences faced by lecturers and students in a South African TVET College. By focusing on these experiences, this study provides meaningful insights into the teaching and learning opportunities and challenges brought about by the global pandemic.

The qualitative approach employed in this research was chosen deliberately for its suitability in exploring the depth of experiences among lecturers and students during the COVID-19 pandemic at a TVET College. This method allowed for a nuanced analysis of verbal and textual responses, providing insights that extend beyond surface-level observations. Guided

conversations with participants who directly experienced these challenges facilitated a comprehensive understanding of their perspectives.

One of the key findings highlighted by this study is the profound difficulty encountered during the transition from traditional face-to-face teaching to online learning. Lecturers and students alike faced significant hurdles related to connectivity issues, network reliability, data constraints, and inadequate access to suitable devices. These challenges were particularly acute among students from disadvantaged backgrounds, whose living conditions often proved unsupportive for effective learning. Practical subjects such as Computer Practice and Workshop content posed additional challenges, as remote teaching methods struggled to replicate hands-on learning experiences. The findings highlighted the broader socio-economic disparities that impact educational outcomes, reaffirming that many TVET College students faced environments ill-suited for effective learning during the lockdown period in South Africa. Lecturers expressed frustration over their inability to engage students fully in practical subjects, further complicating the educational landscape.

This dissertation enriches the existing literature by offering a detailed exploration of the specific challenges experienced within South African TVET Colleges during the COVID-19 pandemic. By highlighting the difficulties faced by lecturers and students in adapting to online learning and navigating socio-economic constraints, this research contributes to a deeper understanding of the complexities inherent in educational resilience and adaptation during times of crisis. Moving forward, educational policymakers and institutions must address these findings by implementing inclusive strategies that mitigate disparities and enhance educational access and quality for all students. This reflective analysis aims to inform future educational initiatives aimed at fostering equitable and effective teaching and learning environments within TVET Colleges in South Africa.

Informed by the findings in this study, this dissertation expands the conceptual framework developed in Chapter Two. In this regard, the study contributes towards a conceptual framework for enhancing resilience in TVET Colleges in South Africa. Figure 6.1 illustrates.

ENHANCING RESILIENCE IN TVET COLLEGES

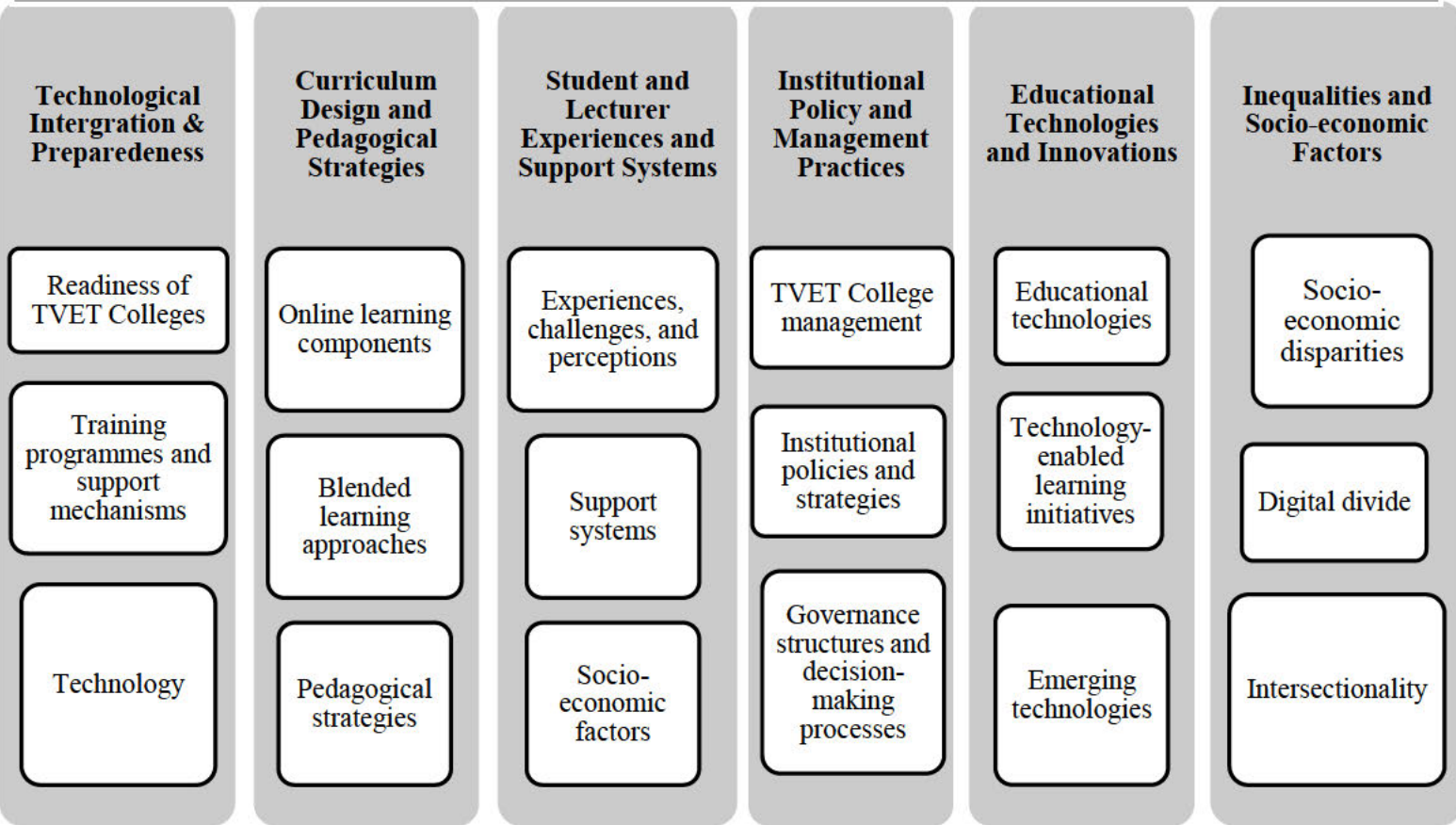


Figure 6.1: Framework for Enhancing Resilience in TVET College.

First, the framework suggests exploring technological integration and preparedness. To do this, the framework argues for investigating the readiness of TVET Colleges across different provinces in South Africa in terms of technological infrastructure (e.g., internet connectivity, and availability of devices). Likewise, the framework argues for assessing the effectiveness of training programmes and support mechanisms provided to lecturers for transitioning to online teaching methods. Moreover, informed by this exploration, research must examine the role of technology in facilitating equitable access to education, particularly for students from underprivileged backgrounds.

Second, the framework advocates for curriculum design and pedagogical strategies for blended learning. To do this, research must study the adaptation and integration of online learning components into TVET College curricula. It must also evaluate the impact of blended learning approaches on student engagement, learning outcomes, and retention rates. Finally, it must

investigate alternative innovative pedagogical strategies employed by lecturers to enhance practical skill development in a digital learning environment.

Third, the framework emphasises student and lecturer experiences and support systems. To achieve this feat, research must explore the experiences, challenges, and perceptions of lecturers and students during periods of remote learning. It must also assess the effectiveness of support systems (e.g., WhatsApp groups, virtual office hours) in fostering student-lecturer interactions and academic support and investigate the socio-economic factors influencing access to and participation in remote learning among TVET College students.

Fourth, the framework argues for institutional policy and management practices, wherein the role of TVET College management in implementing and supporting educational activities during epidemics like COVID-19 is analysed. Indeed, there is also the need to evaluate the effectiveness of institutional policies and strategies in mitigating educational disruptions and promoting resilience. Finally, research should examine governance structures and decision-making processes within TVET Colleges to identify opportunities for enhancing agility and responsiveness to future disruptions.

Fifth, the framework argues for the evaluation of educational technologies and innovation by investigating the efficacy of educational technologies (e.g., learning management systems, virtual labs) in enhancing practical skill acquisition and knowledge retention in TVET programmes, assessing the scalability and sustainability of technology-enabled learning initiatives in diverse TVET College settings, and exploring emerging technologies (e.g., artificial intelligence, virtual reality) and their potential applications in improving educational delivery and student engagement in TVET Colleges.

Finally, the framework points to understanding the impact of inequalities within which the experiences of lecturers and students are located and understood. It argues for the examination towards understanding how socio-economic disparities impact access to digital learning resources and educational opportunities among TVET College students. Moreover, it calls for an investigation into strategies for addressing digital divide issues and promoting inclusive educational practices in TVET Colleges. Lastly, the framework suggests an analysis of the intersectionality of race, gender, and socio-economic status in shaping educational experiences and outcomes during crises.

By employing this framework, future research can contribute towards advancing knowledge, informing policy decisions, and improving educational outcomes in TVET Colleges, particularly in navigating challenges posed by unforeseen disruptions such as pandemics.

6.5 Implications of the Study

This study proposes several key recommendations aimed at enhancing the resilience and effectiveness of teaching and learning in TVET Colleges, particularly in response to the challenges highlighted during the COVID-19 pandemic.

Firstly, it is crucial for TVET Colleges' policy makers and management to actively involve lecturers and other relevant stakeholders, including academic boards, in re-designing curricula to incorporate online learning. Leveraging the expertise of 'digital native' lecturers to mentor their less experienced colleagues ('digital migrants') within flexible organisational structures for online lessons is recommended. This mentorship approach can facilitate smoother transitions to online teaching methodologies. The DHET should support this effort through comprehensive lecturer development programs aimed at empowering educators with the necessary digital skills and pedagogical strategies.

Secondly, TVET Colleges, with support from DHET, should prioritise investments in technology infrastructure. This includes ensuring free Wi-Fi access for both students and lecturers and establishing open computer laboratories to assist students who may not have access to personal laptops or qualify for financial aid. Initial challenges in creating learning content can be mitigated through innovation and adequate support mechanisms. Introducing a dedicated research unit within TVET Colleges would further enhance these initiatives by providing ongoing evaluation and guidance to executive management on effective educational practices.

The findings also underscore the value of maintaining student-lecturer connections through platforms like WhatsApp groups during periods of remote learning. This informal communication channel proved beneficial in facilitating continuous learning and support. Considering its effectiveness, integrating WhatsApp or similar tools into long-term course delivery strategies beyond the pandemic is recommended. Systematic evaluation of these initiatives is essential to assess their impact and inform future planning by TVET management.

To support blended learning approaches, lecturers could utilise short recorded summaries of lessons, accessible through the TVET College website. This would enable students to review missed content due to illness or transport challenges. Introducing virtual interaction platforms on college websites would further enhance engagement, allowing lecturers to connect with students during designated virtual hours. These virtual interactions could complement traditional face-to-face lessons and accommodate students and lecturers unable to be physically present on campus.

These recommendations are pivotal for TVET Colleges to enhance their preparedness and resilience in the face of future unexpected disruptions, such as pandemics. By implementing these strategies, TVET Colleges can foster inclusive and effective learning environments that meet the diverse needs of students and lecturers alike, ensuring continuity and quality in education delivery.

6.6 Limitations of the Study

This study is constrained by several limitations that warrant consideration when interpreting its findings. Firstly, the research exclusively focuses on the experiences of a limited number of lecturers and students at Ekurhuleni East TVET College in Gauteng Province, South Africa. Consequently, the findings are not generalisable to lecturers and students across all 50 TVET Colleges in the country regarding their experiences of teaching and learning during the COVID-19 lockdown period. The insights derived from this study are specific to the context and circumstances of the participants involved. Moreover, the qualitative nature of the study means that the analysis and subsequent discussions are based solely on the perspectives and interpretations provided by the sampled lecturers and students. While this approach offers rich, detailed insights into their lived experiences, it inherently limits the scope of generalisability to broader populations within TVET Colleges.

Additionally, the study's reliance on qualitative methods such as in-depth interviews and focus group discussions may introduce biases related to participant selection and response. The findings reflect the viewpoints and experiences of those who chose to participate, potentially excluding perspectives that differ or were not captured during data generation. Furthermore, the specific timing of data collection during the COVID-19 pandemic may have influenced the

outcomes observed. Conditions and challenges related to remote learning and socio-economic disparities could evolve, impacting the relevance of the study's findings in future contexts.

While this study provides valuable insights into the challenges and experiences of lecturers and students at Ekurhuleni East TVET College during the COVID-19 pandemic, its findings are context-specific and may not be broadly applicable to all TVET Colleges in South Africa. Recognising these limitations is essential for appropriately interpreting and applying the study's conclusions within the field of educational research and policy development. Future research endeavours should aim to incorporate a broader sample size and diverse perspectives to enrich understanding and enhance the generalisability of findings across different contexts.

6.7 Conclusion

My journey in this dissertation has been profoundly shaped by my career within the education sector, particularly my roles as a Lecturer, Head of Department, and Campus Manager at a TVET College in Gauteng, South Africa. This study was born out of a desire to comprehend the challenges faced by lecturers and students as they navigated the complexities of teaching and learning during the COVID-19 pandemic, particularly in Gauteng, the epicentre of the outbreak in South Africa. Drawing from my first-hand experience and observations, I recognised that TVET Colleges were ill-prepared for the abrupt shift away from traditional face-to-face teaching to remote learning.

My interest in this study was further fuelled by the realisation that there was a significant gap in scholarly attention devoted to understanding the experiences of lecturers and students during the heightened state of alert caused by COVID-19. Engaging deeply with the existing literature and reflecting on my own experiences as a Campus Manager and member of the COVID-19 task team at the College, I gained insights into the underlying reasons why TVET Colleges struggled with technology adoption and online education during the pandemic.

In concluding this dissertation, the narratives shared by TVET lecturers and students encapsulate a spectrum of emotions—frustration, optimism, and resilience. Their accounts provide candid reflections on the limitations they encountered while striving to balance their safety and academic continuity during the peak of the COVID-19 pandemic. Analysing these narratives revealed several critical insights:

1. The pivotal role of TVET College management and the DHET in supporting teaching and learning through digital platforms during the unprecedented challenges of lockdown.
2. Lessons learned from the pandemic experience, emphasising the imperative of readiness and adaptation for future crises.
3. The stark inequalities that impede teaching and learning for African students across South Africa, particularly in terms of access to technology and supportive learning environments.
4. The essentiality of collaboration and support among TVET management, lecturers, students, DHET, and parents during times of crisis.

Looking ahead, these insights underscore the urgent need for TVET Colleges to redefine their educational strategies, focusing on technology infrastructure investments, timely provision of resources, and innovative approaches to curriculum delivery. Education is a fundamental human right in South Africa, and no student should be left behind due to unforeseen circumstances like pandemics. The rapid shift to online education demands comprehensive resources, including ongoing training for lecturers in online teaching and assessment methods, and adaptive curriculum frameworks that integrate practical subjects through emerging technologies like artificial intelligence.

The knowledge generated through this dissertation holds significant potential to mobilise stakeholders towards enhancing teaching and learning outcomes in the TVET sector, aligning educational practices with the demands of the Fourth Industrial Revolution across all communities, irrespective of the historical inequities inherited from apartheid. Unless we recognise and prioritise the pivotal role of TVET education in re-skilling the nation and improving the livelihoods of all South Africans, the sector will continue to face challenges and be undervalued.

References

- Abramson, A. (2021). Capturing the benefits of remote learning. In *Monitor on Psychology* (Vol. 52, Issue 6, pp. 46–53).
- Adedoyin, O. B., & Soykan, E. (2023). Covid-19 pandemic and online learning: the challenges and opportunities. *Interactive Learning Environments*, 31(2), 863–875. <https://doi.org/10.1080/10494820.2020.1813180>
- Adom, D., Hussain, E. K., & Joe, A. A. (2018). Theoretical and Conceptual Framework: Mandatory Ingredients Theoretical and Conceptual Framework: Mandatory Ingredients Engineering Dickson Adom * Emad Kamil Hussein. *International Journal of Scientific Research*, 7(1), 93–98. <https://www.researchgate.net/publication/322204158%0ATHEORETICAL>
- Ahluwalia, R., Lucille Blumberg, Cohen, C., McCarthy, K., & McMorrow, M. (2020). *Guidelines for Post School Education and Training (PSET) Institutions for management of and response to the COVID-19 outbreak. 30 April*, 1–36. <https://higherhealth.ac.za/wp-content/uploads/2020/05/Guidelines-for-Post-School-Education-and-Training-PSET-Institutions-for-management-of-and-response-to-the-COVID-19-outbreak.pdf>
- Al-balas, M., Al-balas, H. I., Jaber, H. M., Obeidat, K., Al-balas, H., Aborajoo, E. A., Al-taher, R., & Al-balas, B. (2020). *Distance learning in clinical medical education amid COVID-19 pandemic in Jordan : current situation , challenges , and perspectives*. 1–7.
- Al-rasheed, M. (2021). Protective Behavior against COVID-19 among the Public in Kuwait : An Protective Behavior against COVID-19 among the Public in Kuwait : An Examination of the Protection Motivation Theory , Trust in Government , and Sociodemographic Factors. *Social Work in Public Health*, 35(7), 546–556. <https://doi.org/10.1080/19371918.2020.1806171>
- Alghamdi, A. A. (2021). Impact of the COVID-19 pandemic on the social and educational aspects of Saudi university students' lives. *PLoS ONE*, 16(4 April), 1–18. <https://doi.org/10.1371/journal.pone.0250026>
- Allen, J., Rowan, L., & Singh, P. (2020). Teaching and teacher education in the time of COVID-19. In *Asia-Pacific Journal of Teacher Education* (Vol. 48, Issue 3, pp. 233–236). Routledge. <https://doi.org/10.1080/1359866X.2020.1752051>
- Almahasees, Z., Mohsen, K., & Amin, M. O. (2021). Faculty's and Students' Perceptions of Online Learning During COVID-19. *Frontiers in Education*, 6(May), 1–10. <https://doi.org/10.3389/educ.2021.638470>
- Anifowoshe, O., Aborode, A. T., Ayodele, T. I., Ireteyayo, A. R., & David, O. O. (2020). *Impact of COVID-19 on Education in Sub-Saharan Africa*. <https://doi.org/10.20944/preprints202007.0027.v1>
- Ardalan, K. (2010). *Economic Dimension of Globalization and Finance: 1(2)*, 41–67.
- Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Impacts of the COVID-19 Pandemic on Life of Higher Education Students: *Sustainability (Switzerland)*, 12(20), 1–34.
- Azmat, M., & Ahmad, A. (2022). *Pedagogical Innovations During a Pandemic at University*

- Level in Pakistan*. 12(6), 248–254. <https://doi.org/10.17265/2161-623X/2022.06.006>
- Babbie, E. and Mouton, J. (2001). *Babbie, E. and Mouton, J. (2001) The Practice of Social Research*. 2001.
- Babbie, E. R. (2016). *The Practice of Social Research (14th ed.)*. Boston: Cengage Learning. (2016). 2016.
- Bagarukayo, E., & Kalema, B. (2015). Evaluation of elearning usage in South African universities: A critical review. *International Journal of Education and Development Using Information and Communication Technology*, 11(2), 168–183.
- Baker, S., Waterfield, J., & Bartlam, B. (2018). Saturation in qualitative research : exploring its conceptualization and operationalization. *Quality & Quantity*, 52(4), 1893–1907. <https://doi.org/10.1007/s11135-017-0574-8>
- Baloran, E. T. (2020). Knowledge, Attitudes, Anxiety, and Coping Strategies of Students during COVID-19 Pandemic. *Journal of Loss and Trauma*, 25(8), 635–642. <https://doi.org/10.1080/15325024.2020.1769300>
- Bandura, A. (1982). *Self-Efficacy Mechanism in Human Agency*. 37(2), 122–147.
- Barron, M., Cobo, C., Munoz-Najar, A., & Ciarrusta, I. S. (2021). The changing role of teachers and technologies amidst the COVID 19 pandemic: key findings from a cross-country study. In *Education for Global Development* (pp. 1–9). <https://blogs.worldbank.org/education/changing-role-teachers-and-technologies-amidst-covid-19-pandemic-key-findings-cross>
- Becker, S., Breaux, R., Cusick, C., Dvorsky, M., Marsh, N., Sciberras, E., & Langberg, J. (2017). Remote Learning during COVID-19: Examining School Practices, Service Continuation, and Difficulties for Adolescents with and ADHD. *J Adolesc Health*, 176(5), 139–148. <https://doi.org/10.1016/j.jadohealth.2020.09.002.Remote>
- Bell, E., & Bryman, A. (2016). *The Ethics of Management Research : An Exploratory Content Analysis*. March 2007. <https://doi.org/10.1111/j.1467-8551.2006.00487.x>
- Bertram, C., & Christiansen, I. (2014). *Understanding research. An introduction to reading research*. Pretoria: Van Schaik Publishers . (2014). 2014.
- Bharuthram, S., & Kies, C. (2013). Introducing e-learning in a South African higher education institution: Challenges arising from an intervention and possible responses. *British Journal of Educational Technology*, 44(3), 410–420. <https://doi.org/10.1111/j.1467-8535.2012.01307.x>
- Bless and Higson-Smith.pdf*. (n.d.).
- Bless, C. . & H.-S. C. (2000). (2006). *Bless, C., & Higson-Smith, C. (2000). Fundamentals of Social Research Methods: An African Perspective*. Cape Town: Juta and Company. 2006.
- Bracquemont, M. (2019). Schools boost efforts to increase immunization in cholera-affected communities in Aden. In *Unicef*. <https://www.unicef.org/yemen/stories/schools-boost-efforts-increase-immunization-cholera-affected-communities-aden>
- Braun, V. (n.d.-a). *No Title*. 1–41.
- Braun, V. (n.d.-b). *Successful Qualitative Research a practical guide for beginners Chapter*

1 : Some very important starting information.

- Braun, V., & Clarke, V. (2012). Thematic analysis. *APA Handbook of Research Methods in Psychology, Vol 2: Research Designs: Quantitative, Qualitative, Neuropsychological, and Biological.*, 2, 57–71. <https://doi.org/10.1037/13620-004>
- Braun, V., & Clarke, V. (2014). What can “thematic analysis” offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-Being*, 9, 20–22. <https://doi.org/10.3402/qhw.v9.26152>
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- Braun, V., Clarke, V., Braun, V., & Clarke, V. (2017). Applied Qualitative Research in Psychology. *Applied Qualitative Research in Psychology*, 0887(2006). <https://doi.org/10.1057/978-1-137-35913-1>
- Cahapay, M. B. (2020). Rethinking Education in the New Normal Post-COVID-19 Era: A Curriculum Studies Perspective. *Aquademia*, 4(2), ep20018. <https://doi.org/10.29333/aquademia/8315>
- Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: a literature review of online teaching and learning practices. *European Journal of Teacher Education*, 43(4), 466–487. <https://doi.org/10.1080/02619768.2020.1821184>
- Carson, D., Gilmore, A., Perry, C., & Gronhaug, K. (2011). Focus Group Interviewing. *Qualitative Marketing Research*, October, 113–131. <https://doi.org/10.4135/9781849209625.n8>
- Cerujano, E. (2010). *Presented to Presented to. May*, 88.
- Cheng, Y.-L., Lee, C.-Y., Huang, Y.-L., Buckner, C. A., Lafrenie, R. M., Dénomée, J. A., Caswell, J. M., Want, D. A., Gan, G. G., Leong, Y. C., Bee, P. C., Chin, E., Teh, A. K. H., Picco, S., Villegas, L., Tonelli, F., Merlo, M., Rigau, J., Diaz, D., ... Mathijssen, R. H. J. (2016). We are IntechOpen , the world ’ s leading publisher of Open Access books Built by scientists , for scientists TOP 1 % . *Intech*, 11(tourism), 13. <https://www.intechopen.com/books/advanced-biometric-technologies/liveness-detection-in-biometrics>
- Clarke, V., & Braun, V. (2017). Thematic analysis. *Journal of Positive Psychology*, 12(3), 297–298. <https://doi.org/10.1080/17439760.2016.1262613>
- Clubb, A. C., & Hinkle, J. C. (2015). Protection motivation theory as a theoretical framework for understanding the use of protective measures. *Criminal Justice Studies*, 28(3), 336–355. <https://doi.org/10.1080/1478601X.2015.1050590>
- Cohen, L. L., Feinstein, A., Masuda, A., & Vowles, K. E. (2014). *Single-Case Research Design in Pediatric Psychology : Considerations Regarding Data Analysis*. 39(2), 124–137.
- Crawford, L. M. (2019). Conceptual and theoretical frameworks in research. *Research Design and Methods: An Applied Guide for the Scholar-Practitioner*, 35–48. https://uk.sagepub.com/sites/default/files/upm-binaries/105274_ch03_14.pdf
- Cresswell, J. W., & V. L. Plano Clark. (2007). *Designing and Conducting Mixed Methods*

- Research*. Thousand Oaks, CA: Sage Publications. F. (2007). 2007. *Cresswell.pdf*. (n.d.).
- Cresswell, T. (2014). *Mobilities III : Moving on*. 38(5), 712–721. <https://doi.org/10.1177/0309132514530316>
- da Silva Prado, A., Kohls, E., Baldofski, S., Bianchi, A. S. A., Trindade, L. I. P., de Lucas Freitas, J., & Rummel-Kluge, C. (2023). How are Brazilian university students coping with the COVID-19 pandemic? Results of an online survey on psychosocial well-being, perceived burdens, and attitudes toward social distancing and vaccination. *PLoS ONE*, 18(4 April), 1–23. <https://doi.org/10.1371/journal.pone.0284190>
- Damoah, B., & Omodan, B. I. (2022). *Post-COVID-19 Pandemic Era Teaching and Learning Strategies in South African Schools*. 3(11), 90–103.
- DeCoito, I., & Estaiteyeh, M. (2022). Online teaching during the COVID-19 pandemic: exploring science/STEM teachers' curriculum and assessment practices in Canada. *Disciplinary and Interdisciplinary Science Education Research*, 4(1). <https://doi.org/10.1186/s43031-022-00048-z>
- Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*, 49(1), 5–22. <https://doi.org/10.1177/0047239520934018>
- Diao, J. A., Wang, J. K., Chui, W. F., Mountain, V., Gullapally, S. C., Srinivasan, R., Mitchell, R. N., Glass, B., Hoffman, S., Rao, S. K., Maheshwari, C., Lahiri, A., Prakash, A., Mcloughlin, R., Kerner, J. K., Resnick, M. B., Montalto, M. C., Khosla, A., Wapinski, I. N., ... Elliott, H. L. (2021). Human-interpretable image features derived from densely mapped cancer pathology slides predict diverse molecular phenotypes. *Nature Communications*, 1–15. <https://doi.org/10.1038/s41467-021-21896-9>
- Dube, B. (2020). Rural online learning in the context of COVID-19 in South Africa: Evoking an inclusive education approach. *Multidisciplinary Journal of Educational Research*, 10(2), 135–157. <https://doi.org/10.17583/remie.2020.5607>
- El Hajam, M., Plavan, G. I., Kandri, N. I., Dumitru, G., Nicoara, M. N., Zerouale, A., & Faggio, C. (2020). Evaluation of softwood and hardwood sawmill wastes impact on the common carp "Cyprinus carpio" and its aquatic environment: An oxidative stress study. *Environmental toxicology and pharmacology*, 75, 103327. (2020). 103327.
- Ezati Rad, R., Mohseni, S., Kamalzadeh Takhti, H., Hassani Azad, M., Shahabi, N., Aghamolaei, T., & Norozian, F. (2021). Application of the protection motivation theory for predicting COVID-19 preventive behaviors in Hormozgan, Iran: a cross-sectional study. *BMC Public Health*, 21(1), 466. <https://doi.org/10.1186/s12889-021-10500-w>
- Farooqui, A. (2020). *Political representation of a minority : Muslim representation in contemporary India*.
- Fernández-batanero, J. M., Román-graván, P., Montenegro-rueda, M., & Fernández-cerero, J. (n.d.). *Conocimiento del profesorado universitario sobre el uso de recursos digitales para atender a personas con discapacidad . El caso de la Comunidad Autónoma de Castilla-La Mancha*. 98(2022), 63–78.
- Francis, D. V., & Weller, C. E. (2022). *Economic Inequality , the Digital Divide , and Remote Learning During COVID-19*. <https://doi.org/10.1177/00346446211017797>

- Fuchs, K. (2021). Perceived satisfaction of emergency remote teaching: More evidence from Thailand. *International Journal of Learning, Teaching and Educational Research*, 20(6), 1–15. <https://doi.org/10.26803/IJLTER.20.6.1>
- garmezy. (1985). Masten, A. S., & Garmezy, N. (1985). Risk, vulnerability, and protective factors in developmental psychopathology. In *Advances in clinical child psychology* (pp. 1-52). Boston, MA: Springer US. 1985.
- Gazette, G., & Notice, G. (2021). *Management of the 2021 Academic Year in Public and Private Higher Education Institutions : Issued in Terms of the. 44342*, 3–16.
- Gelles, L. A., Lord, S. M., Hoople, G. D., Chen, D. A., & Mejia, J. A. (2020). Compassionate flexibility and self-discipline: Student adaptation to emergency remote teaching in an integrated engineering energy course during covid-19. *Education Sciences*, 10(11), 1–23. <https://doi.org/10.3390/educsci10110304>
- Genuis, S. K., Luth, W., Bubela, T., & Johnston, W. S. (2022). Covid-19 threat and coping : application of protection motivation theory to the pandemic experiences of people affected by amyotrophic lateral sclerosis. *BMC Neurology*, 1–13. <https://doi.org/10.1186/s12883-022-02662-w>
- George, G., & Schillebeeckx, S. J. (2022). Digital transformation, sustainability, and purpose in the multinational enterprise. *Journal of World Business* , 57 (3), 101326. (2022). 57, 101326.
- George, M. L. (2020). Effective Teaching and Examination Strategies for Undergraduate Learning During COVID-19 School Restrictions. *Journal of Educational Technology Systems*, 49(1), 23–48. <https://doi.org/10.1177/0047239520934017>
- Gómez-García, G., Ramos-Navas-Parejo, M., de la Cruz-Campos, J. C., & Rodríguez-Jiménez, C. (2022). Impact of COVID-19 on University Students: An Analysis of Its Influence on Psychological and Academic Factors †. *International Journal of Environmental Research and Public Health*, 19(16). <https://doi.org/10.3390/ijerph191610433>
- Grant, C., & Osanloo, A. (2014). Understanding, Selecting, and Integrating a Theoretical Framework in Dissertation Research: Creating the Blueprint for Your “House.” *Administrative Issues Journal Education Practice and Research*, 4(2), 12–26. <https://doi.org/10.5929/2014.4.2.9>
- Güner, R., Hasanoğlu, İ., & Aktaş, F. (2020). Covid-19: Prevention and control measures in community. *Turkish Journal of Medical Sciences*, 50(SI-1), 571–577. <https://doi.org/10.3906/sag-2004-146>
- Hallgarten, J. (2020). Evidence on efforts to mitigate the negative educational impact of past disease outbreaks. *K4D, Knowledge, Evidence and Learning for Development*, 1–19. <https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/15202>
- Hamlin, A. R., & Barney, S. T. (2022). The Impact of COVID-19 on U.S. College Students, and How Educators Should Respond. *Research in Higher Education Journal*, 42, 1–16. <https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1347721&site=ehost-live>
- Hancock, R. E. W., & Patrzykat, A. (2002). *Clinical Development of Cationic Antimicrobial Peptides : From Natural to Novel Antibiotics*. 604, 79–83.

- Haug, N., Geyrhofer, L., Londei, A., Dervic, E., Desvars-Larrive, A., Loreto, V., Pinior, B., Thurner, S., & Klimek, P. (2020). Ranking the effectiveness of worldwide COVID-19 government interventions. *Nature Human Behaviour*, 4(12), 1303–1312. <https://doi.org/10.1038/s41562-020-01009-0>
- Health, H., & Task, T. (2020). *Protocol on Routine Cleaning for COVID-19 Prevention within Post School Education & Training (PSET) Institutions*. May, 1–18.
- Hennink, M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social science & medicine*, 292, 114523. (2022). 114523.
- Higher Health South Africa. (2020). *Student and Staff Volunteer Protocol for COVID-19 Programme within the Post School Education & Training (PSET) Sector*. May. www.higherhealth.ac.za
- Hinssen, M., & Dohle, S. (2023). *Personal protective behaviors in response to COVID-19 : a longitudinal application of protection motivation theory*. 2019(August), 1–12. <https://doi.org/10.3389/fpsyg.2023.1195607>
- Hoadley, U. (2023). *COVID-19 and the South African curriculum policy response COVID-19 and the South African curriculum policy response*. May.
- Hoftijzer, M., Levin, V., Santos, I., & Weber, M. (2020). *TVET Systems' Response to COVID-19: Challenges and Opportunities*. World Bank, Washington, DC. (2020). 2020.
- Holmes, C. M., & Reid, C. (2017). *A Comparison Study of On-campus and Online Learning Outcomes for a Research Methods Course*. 9(2).
- Howard, J., Huang, A., Li, Z., Tufekci, Z., Zdimal, V., van der Westhuizen, H. M., von Delft, A., Price, A., Fridman, L., Tang, L. H., Tang, V., Watson, G. L., Bax, C. E., Shaikh, R., Questier, F., Hernandez, D., Chu, L. F., Ramirez, C. M., & Rimoin, A. W. (2021). An evidence review of face masks against COVID-19. *Proceedings of the National Academy of Sciences of the United States of America*, 118(4), 1–12. <https://doi.org/10.1073/pnas.2014564118>
- <https://plus.google.com/+UNESCO>. (2020). Education: From disruption to recovery. In *Unesco*. <https://en.unesco.org/covid19/educationresponse>
- Idris, A., Davis, A., Supramaniam, A., Acharya, D., Kelly, G., Tayyar, Y., West, N., Zhang, P., Mcmillan, C. L. D., Soemardy, C., Ray, R., Meally, D. O., Scott, T. A., Mcmillan, N. A. J., & Morris, K. V. (2021). A SARS-CoV-2 targeted siRNA-nanoparticle therapy for COVID-19. *Molecular Therapy*, 29(7), 2219–2226. <https://doi.org/10.1016/j.ymthe.2021.05.004>
- International Labour Organization, World, A., & Bank. (2021). *Skills development in the time of COVID-19 :*
- Jamshed, S. (2014). *Qualitative research method-interviewing and observation*. *Journal of basic and clinical pharmacy*, 5 (4), 87. (2014). 5, 2014.
- Johnston, A. C., & Warkentin, M. (2014). *Fear Appeals and Information Security Behaviors : An Empirical Study F EAR A PPEALS AND INFORMATION SECURITY B EHAVIORS : A N E MPIRICAL S TUDY I*. May. <https://doi.org/10.2307/25750691>
- Jonckheere, E. (2019). *In search of identities : ' Foreigners ' in fin-de- siècle Belgian café-*

concerts. 16(2), 384–403.

- Jones, A. L., & Kessler, M. A. (2020a). Teachers' Emotion and Identity Work During a Pandemic. *Frontiers in Education*, 5(November), 1–9. <https://doi.org/10.3389/educ.2020.583775>
- Jones, A. L., & Kessler, M. A. (2020b). *Teachers' Emotion and Identity Work During a Pandemic*. 5(November), 1–9. <https://doi.org/10.3389/educ.2020.583775>
- Kelly, K., Hwei, L. R. Y., & Octavius, G. S. (2020). Coronavirus outbreaks including COVID-19 and impacts on medical education: a systematic review. *Journal of Community Empowerment for Health*, 3(2), 130. <https://doi.org/10.22146/jcoemph.57082>
- Khan, M. A. (2015). *Using Films in the ESL Classroom to Improve Communication Skills of Non-Native Learners*. 52(5), 46–52.
- Kim, Y. J. (2020). Tracking dynamics between digital design agencies and clients of hybrid outsourcing in the double diamond website development process. *Archives of Design Research*, 33(1), 17–35. <https://doi.org/10.15187/adr.2020.02.33.1.17>
- Kivunja, C. (2018). Distinguishing between theory, theoretical framework, and conceptual framework: A systematic review of lessons from the field. *International Journal of Higher Education*, 7(6), 44–53. <https://doi.org/10.5430/ijhe.v7n6p44>
- Kojan, L., Burbach, L., Ziefle, M., & Calero Valdez, A. (2022). Perceptions of behaviour efficacy, not perceptions of threat, are drivers of COVID-19 protective behaviour in Germany. *Humanities and Social Sciences Communications*, 9(1), 1–15. <https://doi.org/10.1057/s41599-022-01098-4>
- Kompen, R. T., Edirisingha, P., & Monguet, J. M. (2012). *Personal learning environments in distance education. Trends and issues in distance education: International perspectives*, 223. (2012). 2012.
- Koninckx 2021.pdf. (n.d.).
- Kumar, A., Sarkar, M., Davis, E., Morphet, J., Maloney, S., Ilic, D., & Palermo, C. (2021). Impact of the COVID-19 pandemic on teaching and learning in health professional education: a mixed methods study protocol. *BMC Medical Education*, 21(1), 1–7. <https://doi.org/10.1186/s12909-021-02871-w>
- Landa, J., Guasp, M., Guimaraes, J., Mishima, T., Iizuka, T., Zipp, F., Fuhr, P., Maudes, E., Garcia, A., Honnorat, J., Titulaer, M., Simabukuro, M., Planaguma, J., Armangue, T., Saiz, A., Gasull, X., Soto, D., Graus, F., Sabater, L., & X-z, D. J. (n.d.). *Antibodies to Glutamate Kainate receptors GluK2 in Autoimmune Encephalitis and Cerebellitis*.
- Liang, Z. C., Ooi, S. B. S., & Wang, W. (2020). Pandemics and Their Impact on Medical Training: Lessons from Singapore. *Academic Medicine*, 95(9), 1359–1361. <https://doi.org/10.1097/ACM.0000000000003441>
- Lopes, H., & McKay, V. (2020). Adult learning and education as a tool to contain pandemics: The COVID-19 experience. *International Review of Education*, 66(4), 575–602. <https://doi.org/10.1007/s11159-020-09843-0>
- Maddux and Rogers 1983. (n.d.).

- Magomedov, I. A., Khaliev, M. S. U., & Khubolov, S. M. (2020). The negative and positive impact of the pandemic on education. *Journal of Physics: Conference Series*, 1691(1). <https://doi.org/10.1088/1742-6596/1691/1/012134>
- Maguire, M., & Delahunt, B. (2017). *Doing a Thematic Analysis : A Practical , Step-by-Step Guide for Learning and Teaching Scholars* . 3(3).
- Mahyoob, M. (2020). *Challenges of e-Learning during the COVID-19 Pandemic Experienced by EFL Learners*. 11(December), 351–362.
- Masina, R., & Mawonedzo, A. (2022). The impact of COVID-19 pandemic on TVET students' learning process: A case of one Polytechnic College in Harare. *South African Journal of Higher Education*, 36(4), 101–116. <https://doi.org/10.20853/36-4-5185>
- Mason, G. J., & Latham, N. R. (2004). *Can't stop, won't stop: is stereotypy a reliable animal welfare indicator? Melman 1995*, 57–69.
- Maxwell, J. A. (2008). *Designing a Qualitative Study*. 214–253.
- Measey, J. (2021). Academic Phrasebank. *How to Write a PhD in Biological Sciences*, 133–134. <https://doi.org/10.1201/9781003212560-25>
- Mestry, R. (2023). The effect of the COVID-19 pandemic on higher education institutions in South Africa: Resilience of academics. *South African Journal of Education*, 43(December), 1–10. <https://doi.org/10.15700/saje.v43ns1a2414>
- Mhlanga, D., & Moloi, T. (2020). COVID-19 and the digital transformation of education: What are we learning on 4ir in South Africa? *Education Sciences*, 10(7), 1–11. <https://doi.org/10.3390/educsci10070180>
- Miah, H., Singh, D., & Singh, G. (2024). *Materials Today : Proceedings The influence of convex shoulder on tribological and mechanical behavior of FSLW of aircraft assembly technology*. xxxx.
- Mishra, L., Gupta, T., & Shree, A. (2020). *Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. International journal of educational research open , 1 , 100012*. (2020). 100012.
- Mncube, V. S., Mutongoza, B. H., & Olawale, B. E. (2021). Managing higher education institutions in the context of COVID-19 stringency: Experiences of stakeholders at a rural south african university. *Perspectives in Education*, 39(1), 390–409. <https://doi.org/10.18820/2519593X/pie.v39.i1.24>
- Moodley, D. (2022). *Post Covid-19 : The New (Ab) normal in South African Higher Education – Challenges with Emergency Remote Learning*. 4(1), 112–125.
- Moscoviz, L., & Evans, D. K. (n.d.). *Learning Loss and Student Dropouts during the COVID-19 Pandemic : A Review of the Evidence Two Years after Schools Shut Down Working Paper 609 March 2022*. March 2022.
- Motala, S., & Menon, K. (2020). In search of the “new normal”: Reflections on teaching and learning during Covid-19 in a South African university Reading and writing sabbatical View project Teaching and Learning in Higher Education View project. *Southern African Review of Education with Education with Production*, 26(1), 80–99. <https://www.uj.ac.za/coronavirus/>.

- Mpungose, C. B. (2020). Emergent transition from face-to-face to online learning in a South African University in the context of the Coronavirus pandemic. *Humanities and Social Sciences Communications*, 7(1), 1–9. <https://doi.org/10.1057/s41599-020-00603-x>
- Mseleku, Z. (2020). *A Literature Review of E-Learning and E-Teaching in the Era of Covid-19 Pandemic*. October.
- Mthethwa, R. M., & Luthuli, C. (n.d.). *The Impact of COVID-19 Pandemic on Teaching and Learning at Tertiary Institutions Opportunities and Challenges*. 12(3), 91–103.
- Mudaly, R. (2021). *Exploring how the national COVID-19 pandemic policy and its application exposed the fault lines of educational inequality*. 84.
- Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, limitations and recommendations for online learning during covid-19 pandemic era. *Pakistan Journal of Medical Sciences*, 36(COVID19-S4), S27–S31. <https://doi.org/10.12669/pjms.36.COVID19-S4.2785>
- Mukuna, K. R., & Aloka, P. J. O. (2020). Exploring educators' challenges of online learning in COVID-19 at a rural school, South Africa. *International Journal of Learning, Teaching and Educational Research*, 19(10), 134–149. <https://doi.org/10.26803/IJLTER.19.10.8>
- Ndevu, Z. (2020). Understanding the Effects of COVID-19 on Universities in South Africa: An EvidenceBased Approach. *Alternation - Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa*, SP32(1). <https://doi.org/10.29086/2519-5476/2020/sp32a11>
- Neisser, D. (n.d.). *The Benefits Of Online Learning In A COVID-19 World And Beyond /Small Business Sense*. <https://small-bizsense.com/the-benefits-of-online-learning-in-a-covid-19-world-and-beyond/>
- Ngulube, P., Mathipa, E. R., & Gumbo, M. T. (2015). Theoretical and conceptual frameworks in the social and management sciences. *Addressing Research Challenges: Making Headway in Developing Researchers*, June, 43–66. <https://doi.org/10.13140/RG.2.1.3210.7680>
- Nhando, D. (2015). 3 Key Challenges Of Implementing eLearning In Africa - eLearning Industry. In *eLearning Industry*. <https://elearningindustry.com/3-key-challenges-implementing-elearning-in-africa>
- NMMU. (2020). *Re-imagining TVET: The Implications of Covid-19 Proceedings of the Webinar Series Acknowledgements*. <https://publications.mandela.ac.za/publications/media/Store/documents/SpecialInterest/62CYUEE-Webinar-Report.pdf>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). *Thematic Analysis : Striving to Meet the Trustworthiness Criteria*. 16, 1–13. <https://doi.org/10.1177/1609406917733847>
- Nyumba, T. O., Wilson, K., Derrick, C. J., & Mukherjee, N. (2018). *The use of focus group discussion methodology : Insights from two decades of application in conservation*. 2018(January), 20–32. <https://doi.org/10.1111/2041-210X.12860>
- OECD. (2020a). “Education responses to COVID-19: an implementation strategy toolkit.” *OECD Education*, 1–11.

- OECD. (2020b). The impact of COVID-19 on education: Insights from education at a glance 2020. *OECD Journal: Economic Studies*, 1–31.
- Ojo, A. S., Balogun, S. A., Williams, O. T., & Ojo, O. S. (2020). *Review Article Pulmonary Fibrosis in COVID-19 Survivors : Predictive Factors and Risk Reduction Strategies*. 2020. <https://doi.org/10.1155/2020/6175964>
- Onyeaka, H., Anumudu, C. K., Al-Sharify, Z. T., Egele-Godswill, E., & Mbaegbu, P. (2021). COVID-19 pandemic: A review of the global lockdown and its far-reaching effects. *Science Progress*, 104(2), 1–18. <https://doi.org/10.1177/00368504211019854>
- Onyema, E. M. (2020). Impact of Coronavirus Pandemic on Education. *Journal of Education and Practice*, 11(13), 108–121. <https://doi.org/10.7176/jep/11-13-12>
- Paliwal, M., & Singh, A. (2021). Teacher readiness for online teaching-learning during COVID –19 outbreak: a study of Indian institutions of higher education. *Interactive Technology and Smart Education*, 18(3), 403–421. <https://doi.org/10.1108/ITSE-07-2020-0118>
- Parliamentary Monitoring Group. (2020). COVID-19 Response: University & TVET plans for 2020 academic year; DSI work on COVID-19; with Minister. In *Higher Education, Science and Technology* (pp. 1–8).
- Patra, A., Ravi, K. S., & Chaudhary, P. (2021). COVID 19 reflection/experience on teaching–learning and assessment: story of anatomy teachers in India. *Anatomical Science International*, 96(1), 174–175. <https://doi.org/10.1007/s12565-020-00576-6>
- Patrick, H. O., Abiolu, R. T. I., & Abiolu, O. A. (2021). Reflections on covid-19 and the viability of curriculum adjustment and delivery options in the South African educational space. *Transformation in Higher Education*, 6, 1–9. <https://doi.org/10.4102/the.v6i0.101>
- Pfano, M., & Nyawo, J. (2021). the Use of an Online Learning Platform: a Step Towards E-Learning. *South African Journal of Higher Education*, 35(2), 123–143. <https://doi.org/10.20853/35-2-3985>
- Phejane, M. V. (2022). “The new normal”: A case study on the emergent transition towards online teaching and learning in internal medicine and anaesthesiology at the University of the Free State. *Perspectives in Education*, 40(1), 164–178. <https://doi.org/10.18820/2519593X/PIE.V40.I1.10>
- Plotnikoff, R. C., Lippke, S., Trinh, L., Courneya, K. S., Birkett, N., & Sigal, R. J. (2010). Protection motivation theory and the prediction of physical activity among adults with type 1 or type 2 diabetes in a large population sample. *British Journal of Health Psychology*, 15(3), 643–661. <https://doi.org/10.1348/135910709X478826>
- Plotnikoff, R. C., & Trinh, L. (2010). Protection motivation theory: Is this a worthwhile theory for physical activity promotion? *Exercise and Sport Sciences Reviews*, 38(2), 91–98. <https://doi.org/10.1097/JES.0b013e3181d49612>
- Pokhrel, S., & Chhetri, R. (2021). A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning. *Higher Education for the Future*, 8(1), 133–141. <https://doi.org/10.1177/2347631120983481>
- Prentice-dunn, S., Floyd, D. L., & Flournoy, J. M. (2001). *Effects of persuasive message order on coping with breast cancer information*. 16(1), 81–84.

Rallis.pdf. (n.d.).

Randolph, J. J. (2009). A guide to writing the dissertation literature review. *Practical Assessment, Research and Evaluation*, 14(13).

rexel University School of Education. (n.d.). The benefits of online education of a virtual classroom. In *rexel University School of Education*.
<https://drexel.edu/soe/resources/student-teaching/advice/benefits-of-online-and-virtual-learning/>

Reyes-Portillo, J. A., Masia Warner, C., Kline, E. A., Bixter, M. T., Chu, B. C., Miranda, R., Nadeem, E., Nickerson, A., Ortin Peralta, A., Reigada, L., Rizvi, S. L., Roy, A. K., Shatkin, J., Kalver, E., Rette, D., Denton, E. G., & Jeglic, E. L. (2022). The Psychological, Academic, and Economic Impact of COVID-19 on College Students in the Epicenter of the Pandemic. *Emerging Adulthood*, 10(2), 473–490.
<https://doi.org/10.1177/21676968211066657>

Rippetoe, P. A., & Rogers, R. W. (1987). Effects of components of protection-motivation theory on adaptive and maladaptive coping with a health threat. *Journal of personality and social psychology*, 52 (3), 596. (1987). 52, 1987.

Rogers, R. W. (2017). *Protection Motivation and Self-Efficacy : A Revised Theory of Fear Appeals and Attitude Change*. 1031(September 1983).
[https://doi.org/10.1016/0022-1031\(83\)90023-9](https://doi.org/10.1016/0022-1031(83)90023-9)

Romeo, M., Yepes-Baldó, M., Soria, M. Á., & Jayme, M. (2021). Impact of the COVID-19 Pandemic on Higher Education: Characterizing the Psychosocial Context of the Positive and Negative Affective States Using Classification and Regression Trees. *Frontiers in Psychology*, 12(September), 1–25. <https://doi.org/10.3389/fpsyg.2021.714397>

Ruiter, R. A. C., Kessels, L. T. E., Peters, G. Y., & Kok, G. (2014). *Sixty years of fear appeal research : Current state of the evidence ARE POPULAR AND JUSTIFIED WITH WEAK*. 49(2), 63–70. <https://doi.org/10.1002/ijop.12042>

Saha, B., Atiqul Haq, S. M., & Ahmed, K. J. (2023). How does the COVID-19 pandemic influence students' academic activities? An explorative study in a public university in Bangladesh. *Humanities and Social Sciences Communications*, 10(1), 1–10.
<https://doi.org/10.1057/s41599-023-02094-y>

Sahu, P. (2020). Closure of Universities Due to Coronavirus Disease 2019 (COVID-19): Impact on Education and Mental Health of Students and Academic Staff. *Cureus*, 2019(4), 4–9. <https://doi.org/10.7759/cureus.7541>

Samaan, G., McPherson, M., Eidman, J., Obubah, O., Baptiste, J. P., Kuppens, L., Von Harbou, K., Sembiring, M. F., Acharya, S., & Graaff, P. (2022). The World Health Organization's Actions Within the United Nations System to Facilitate a Whole-of-Society Response to COVID-19 at Country Level. *Frontiers in Public Health*, 9(January), 1–7. <https://doi.org/10.3389/fpubh.2021.831220>

Savonitto, B. T. V. I. O. (2020). Building Back Better : Education Systems For Resilience , Equity and Quality in The Age Of Covid-19. *World Bank Group Education*, 1(2), 1–2.

Sawicka, B., Aslan, I., Della Corte, V., Periasamy, A., Krishnamurthy, S. K., Mohammed, A., ... & Umachandran, K. (2022). *The coronavirus global pandemic and its impacts on*

- society. In *Coronavirus Drug Discovery* (pp. 267-311). Elsevier. (2022). 2022.
- Schoonenboom, J., & Johnson, R. B. (2017). How to construct a mixed methods research design. *Kolner Zeitschrift fur Soziologie und Sozialpsychologie*, 69 (Suppl 2), 107. (2017). 69, 2017.
- Schumacker, P. T. (2010). *Is enough oxygen too much ?* <https://doi.org/10.1186/cc9201>
- Scott, J., Hsieh, C., Wu, W. V., Marek, M. W., Scott, J., Hsieh, C., Wu, W. V., & Using, M. W. M. (2016). *Using the flipped classroom to enhance EFL learning*. 8221(May).
- Shaik, N., Dippenaar, A., Kwenda, C., Petersen, K., Esau, D., & Oliver, H. S. (2022). Sink or swim: Exploring resilience of academics at an education faculty during Covid-19. *Journal of Education (South Africa)*, 855(89), 169–185. <https://doi.org/10.17159/2520-9868/i89a09>
- Sharin, A. N. (2021). *E-Learning During Covid-19 : A Review of Literature*. 15–28.
- Sheeran, P., & Orbell, S. (2014). *BJSP-Condom Meta-Analysis Do intentions predict condom use ? Meta- analysis and examination of six moderator variables*. January 2013.
- Shenton, A. K. (2004). *Strategies for ensuring trustworthiness in qualitative research projects*. 22, 63–75.
- Silverman, D., & Silverman, D. (2013). *What Counts as Qualitative Research? Some Cautionary Comments*. IX(2).
- Sim, J., & Waterfield, J. (2019). Focus group methodology : some ethical challenges. *Quality & Quantity*, 53(6), 3003–3022. <https://doi.org/10.1007/s11135-019-00914-5>
- Sinclair, M. (n.d.). *Chapter 1: Education in Emergencies*. 1–83.
- Sinclair, M. (2007). Education in emergencies." Learning for a future: Refugee education in developing countries. *UNICEF, New York*, 1–84. <http://www.cedol.org/wp-content/uploads/2012/02/52-56-2007.pdf>
- Sindiani, A. M., Obeidat, N., Alshdaifat, E., Elsalem, L., Alwani, M. M., Rawashdeh, H., Fares, A. S., Alalawne, T., & Tawalbeh, L. I. (2020). Distance education during the COVID-19 outbreak: A cross-sectional study among medical students in North of Jordan. *Annals of Medicine and Surgery*, 59(August), 186–194. <https://doi.org/10.1016/j.amsu.2020.09.036>
- Sinha, C. (2023). *Power dynamics in education: Shaping the structure of school education in India*. Routledge India. (2023). 2023.
- Sokhulu, L. H. (2021). Students' experiences of using digital technologies to address their personal research needs during the COVID-19 lockdown. *African Identities*, 19(4), 436–452. <https://doi.org/10.1080/14725843.2020.1801384>
- Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: Interview survey study. *Journal of Medical Internet Research*, 22(9), 1–14. <https://doi.org/10.2196/21279>
- South African Government. (2020). *Risk adjusted strategy for the COVID-19 pandemic for public and private highereducation: Criteria for return to campuses*. 43414, 3–11.
- Stankovska, G., Memedi, I., & Grncarovska, S. P. (2022). Impact of COVID-19 on Higher

- Education: Challenges and Opportunities. *Bulgarian Comparative Education Society*, 20, 181–187.
- Stewart, D. W., & Shamdasani, P. N. (2014). *Focus groups: Theory and practice (Vol. 20)*. Sage publications.. (2014). 20, 2014.
- Šula, T. (2018). Thematic analysis. *Ambient Media in Advertising : Importance of Design in Ambient Media Creation*, 66–78. https://doi.org/10.7441/978-80-7454-682-2_4
- Suliman, R., & Mtsweni, J. (2022). Adding up the numbers: COVID-19 in South Africa. *South African Journal of Science*, 118(5–6), 1–5. <https://doi.org/10.17159/sajs.2022/13874>
- Sumner, A., Hoy, C., & Ortiz-juarez, E. (2020). *Estimates of the impact of COVID-19 on global poverty WIDER Working Paper 2020 / 43 Estimates of the impact of COVID-19 on global poverty*.
- Suresh, K. P. (2011). *An overview of randomization techniques : An unbiased assessment of outcome in clinical research*. 4(1). <https://doi.org/10.4103/0974-1208.82352>
- Svatos, J., Holub, J., Fischer, J., & Sobotka, J. (2022). *Online teaching of practical classes under the Covid-19 restrictions. Measurement: Sensors* , 22 , 100378. (2022). 100378. *Tadesse and Muula.pdf*. (n.d.).
- Tenny, K. M., Greco, K. V., Heijden, M. Van Der, Pini, T., Mularczyk, A., Vasile, A., Eller, J., Forner-cuenca, A., Chiang, Y., & Brushett, F. R. (2022). *A Comparative Study of Compressive Effects on the Morphology and Performance of Carbon Paper and Cloth Electrodes in Redox Flow Batteries*. 2101162, 1–11. <https://doi.org/10.1002/ente.202101162>
- The World Bank. (2021). The Impact of COVID-19 on Education - Recommendations and Opportunities for Ukraine. In *The World Bank* (pp. 1–7). <https://www.worldbank.org/en/news/opinion/2021/04/02/the-impact-of-covid-19-on-education-recommendations-and-opportunities-for-ukraine>
- Tomer, A., Kane, J., & Fishbane, L. (2020). *AN INFRASTRUCTURE STIMULUS PLAN FOR THE COVID-19 RECESSION*. July.
- Toquero, C. M. (2020). Challenges and Opportunities for Higher Education amid the COVID-19 Pandemic: The Philippine Context. *Pedagogical Research*, 5(4), em0063. <https://doi.org/10.29333/pr/7947>
- Tsegay, S. M., Ashraf, M. A., Perveen, S., & Zegergish, M. Z. (2022). Online Teaching during COVID-19 Pandemic: Teachers’ Experiences from a Chinese University. *Sustainability (Switzerland)*, 14(1), 1–13. <https://doi.org/10.3390/su14010568>
- Ulla, M. B., & Perales, W. F. (2021). Emergency remote teaching during covid19: The role of teachers’ online community of practice (cop) in times of crisis. *Journal of Interactive Media in Education*, 2021(1), 1–11. <https://doi.org/10.5334/jime.617>
- UNESCO. (2020). *Supporting teachers in back-to-school efforts Key messages*. May. <https://unesdoc.unesco.org/ark:/48223/pf0000373479>
- UNESCO, Teacher Task Force, & International Labour Organization. (2020). *Supporting teachers in back-to-school efforts: A toolkit for school leaders*.

<https://teachertaskforce.org/knowledge-hub/supporting-teachers-back-school-efforts-toolkit-school-leaders>

- Unicef. (2021). Learners in South Africa up to one school year behind where they should be. In *Unicef for Every Child*.
- Vajpeyi Misra, A., Mamdouh, H. M., Dani, A., Mitchell, V., Hussain, H. Y., Ibrahim, G. M., & Alnakhi, W. K. (2022). Impact of COVID-19 pandemic on the mental health of university students in the United Arab Emirates: a cross-sectional study. *BMC Psychology*, *10*(1), 1–12. <https://doi.org/10.1186/s40359-022-00986-3>
- Van De Werfhorst, H. G., Kessenich, E., & Geven, S. (2022). *The digital divide in online education: Inequality in digital readiness of students and schools*. *Computers and Education Open*, *3*, 100100. (2022). 100100.
- Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). *Characterising and justifying sample size sufficiency in interview-based studies : systematic analysis of qualitative health research over a 15-year period*. *7*, 1–18.
- Waldt, G. van der. (2020). Constructing conceptual frameworks in social science research. *The Journal for Transdisciplinary Research in Southern Africa*, *16*(1), 1–9. <https://journals.co.za/content/transd/11/4/EJC185071>
- Wang, C., & Zhao, H. (2020). The Impact of COVID-19 on Anxiety in Chinese University Students. *Frontiers in Psychology*, *11*(May), 1–8. <https://doi.org/10.3389/fpsyg.2020.01168>
- Wang, G., Zhang, Y., Zhao, J., Zhang, J., & Jiang, F. (2020). Mitigate the effects of home confinement on children during the COVID-19 outbreak. *The Lancet*, *395*(10228), 945–947. [https://doi.org/10.1016/S0140-6736\(20\)30547-X](https://doi.org/10.1016/S0140-6736(20)30547-X)
- Wang, X., & Sun, X. (2022). Higher Education During the COVID-19 Pandemic: Responses and Challenges. *Education as Change*, *26*, 1–21. <https://doi.org/10.25159/1947-9417/10024>
- Wang, Y., Jing, X., Han, W., Jing, Y., & Xu, L. (2020). Positive and negative affect of university and college students during COVID-19 outbreak: a network-based survey. *International Journal of Public Health*, *65*(8), 1437–1443. <https://doi.org/10.1007/s00038-020-01483-3>
- Wen, H., Liang, W., & Lee, C. C. (2023). *China's progress toward sustainable development in pursuit of carbon neutrality: Regional differences and dynamic evolution*. *Environmental Impact Assessment Review*, *98*, 106959. (2023). 106959.
- Wieselmann, J. R., & Crotty, E. A. (2022). Teaching during COVID-19: reflections of early-career science teachers. *Disciplinary and Interdisciplinary Science Education Research*, *4*(1). <https://doi.org/10.1186/s43031-022-00057-y>
- Wolfe, C. R., Tomashek, K. M., Patterson, T. F., Gomez, C. A., Marconi, V. C., Jain, M. K., Yang, O. O., Paules, C. I., Kelley, C. F., Holodniy, M., Kim, E. S., Sweeney, D. A., Finberg, R. W., Grimes, K. A., Maves, R. C., Ko, E. R., Engemann, J. J., Taylor, B. S., Ponce, P. O., ... Clark, J. L. (2022). *Baricitinib versus dexamethasone for adults hospitalised with COVID-19 (ACTT-4) : a randomised , double-blind , double placebo-controlled trial*. *10*(September). [https://doi.org/10.1016/S2213-2600\(22\)00088-1](https://doi.org/10.1016/S2213-2600(22)00088-1)
- World Economic Forum. (202 C.E.). The rise of online learning during the COVID-19

pandemic | World Economic Forum. In *The World Economic Forum*.
<https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/>

Wu, S. Y. (2021). How Teachers Conduct Online Teaching During the COVID-19 Pandemic: A Case Study of Taiwan. *Frontiers in Education*, 6(May), 1–11.
<https://doi.org/10.3389/educ.2021.675434>

Yandell, J. (n.d.). *Learning under lockdown : English teaching in the time of Covid-19*.

Yao, J., Rao, J., Jiang, T., & Xiong, C. (2020). What Role Should Teachers Play in Online Teaching during the COVID-19 Pandemic? Evidence from China. *Science Insights Education Frontiers*, 5(2), 517–524. <https://doi.org/10.15354/sief.20.ar035>

Yaseen, S. F. M., & Joshi, S. S. (1970). Positive impact of COVID-19 on Education. *International Research Journal on Advanced Science Hub*, 3(Special Issue 6S), 182–185. <https://doi.org/10.47392/irjash.2021.187>

Yin, S., Ding, S. X., Xie, X., Member, S., & Luo, H. (2014). A Review of Basic Data-Driven Approaches for Industrial Process Monitoring. *61*(11), 6418–6428.

Zhu, X., & Liu, J. (2020). *Education in and After Covid-19 : Immediate Responses and Long-Term Visions*. 695–699.

Ziebell, N., & Robertson, L. (2021). Reflections on teaching and learning during COVID-19 in Queensland independent schools. *Reflections on Teaching and Learning during COVID-19 in Queensland Independent Schools, June*.
<https://bris.idm.oclc.org/login?url=https://www.proquest.com/reports/reflections-on-teaching-learning-during-covid-19/docview/2629129038/se-2?accountid=9730%0Ahttps://bris.on.worldcat.org/atoztitles/link?sid=ProQ:&issn=&volume=&issue=&title=Reflections+on>

APPENDIX A

LETTER OF ETHICAL APPROVAL



08 March 2023

Lekgale Violet Matjila (221121896)
School Of Education
Edgewood Campus

Dear LV Matjila,

Protocol reference number: HSSREC/00005057/2022

Project title: Teaching and learning in the time of corona virus disease: Experiences of lecturers and students at a technical vocational education and training college in Gauteng, South Africa.

Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 18 November 2022 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 08 March 2024.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Yours sincerely,



Professor Dipane Hlalele (Chair)

/dd

Humanities and Social Sciences Research Ethics Committee

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Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

INSPIRING GREATNESS

APPENDIX B

EXAMPLE OF CONSENT FORM GIVEN TO PARTICIPANTS

INFORMATION SHEET AND CONSENT TO PARTICIPATE IN A RESEARCH

Dear Participant

My name is Violet Matjila. I am a Master's candidate studying at the University of KwaZulu-Natal, Edgewood Campus. I am currently conducting research titled: **“Teaching and Learning in the Time of COVID-19: Reflections of Lecturers and Students at a TVET College in Gauteng, South Africa.”**

The study aims to examine the teaching and learning experiences of lecturers and students during the height of the COVID-19 crisis with a special focus on a TVET College in Gauteng Province, South Africa.

To gather the information, I am interested in interviewing you so that you may share your experiences on the subject matter. Please note that:

- The information that you provide will be used for scholarly research only.
- Your participation is entirely voluntary. You have a choice to participate, not to participate, or stop participation in the research. There will be no penalty for taking any such action.
- Your views in this interview will be presented anonymously. Neither your name nor identity will be disclosed in any form in the study.
- The interview will be between 30-60 minutes with a possibility of a follow-up interview if you consent to it.
- The record as well as other items associated with the interview will be held in a password-protected file accessible only to myself and my supervisor. After 5 years, in line with the rules of the university, it will be disposed of by shredding and burning.
- If you agree to participate, please sign the declaration attached to this statement. (A separate CONSENT sheet is provided for your signature).

I can be contacted telephonically or via email using the following:

Email: [REDACTED]

Cell No: [REDACTED]

My supervisor is Dr. Ndumiso Ngidi who is located at the College of Humanities-School of Education, University of KwaZulu-Natal, Edgewood Campus, Durban.

Contact details:

Email: NgidiN10@ukzn.ac.za

Tel No: 033 260 6568

The College of Humanities Research Office contact details:

Email Address: HSSREC@ukzn.ac.za

Telephone: 033-260-5366

Thank you for your valuable contribution to this research.

CONSENT

I (Full names of participants) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participate in the research project. I understand that I am at liberty to withdraw from the project at any time, should I so desire.

I understand the intention of the research and hereby agree to participate.

I consent/ do not consent to have this interview recorded

Signature of Participant:

Date.....

APPENDIX C
GATEKEEPER'S INFORMATION LETTER

[REDACTED]
[REDACTED]
Springs
1559
Date: 01 September 2022

To: The Principal
Ekurhuleni East TVET College
Sam Ngema Drive
Kwa Thema
1560

For Attention: Ms HM Sibande

**REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT EKURHULENI
EAST TVET COLLEGE**

Dear Ms Sibande

I am writing this letter to request permission to conduct my research study at the College. The topic of the research is **Teaching and Learning in the Time of COVID-19: Experiences of Lecturers and Students at a TVET College in Gauteng, South Africa.**

The study will be conducted solely for study purposes as I am a student at the University of KwaZulu Natal (UKZN) doing my Master's Degree in Education.

If my request for permission is granted, I will conduct semi-structured face-to-face interviews and focus group discussions using a qualitative approach with a maximum of 30 students and lecturers.

Upon completion of the study, I undertake to provide the college with a bound copy of the full research report.

Yours Faithfully

Mrs VL Matjil

[REDACTED]

APPENDIX D
GATEKEEPER'S APPROVAL LETTER



higher education
& training
Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA



EKURHULENI EAST TVET COLLEGE
"Committed to Excellence"

HEAD OFFICE
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E-mail: info@eec.edu.za
Private Bag X52
SPRINGS
1560


TO: Ms VL MATJILA
FROM: Ms HM SIBANDE
PRINCIPAL
DATE: 02 SEPTEMBER 2022
SUBJECT: APPROVAL TO CONDUCT RESEARCH AT EKURHULENI EAST TVET COLLEGE

Dear Ms Matjila

This letter serves to acknowledge that the college have received your request to conduct a research in **Teaching and Learning in the Time of COVID-19: Experiences of Lecturers and Students at a TVET College in Gauteng, South Africa**. We are pleased to inform you that you are granted a permission to conduct the research at our institution.

Thank you for showing interest in our College, we are happy to participate in this study and to contribute to this important research.

Kind regards


Ms HM SIBANDE
PRINCIPAL
HMS/slk

E-mail: info@eec.edu.za Website: www.eec.edu.za

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APPENDIX E

FOCUS GROUP DISCUSSION AND IN-DEPTH INTERVIEW GUIDE

INTERVIEW SCHEDULE FOR LECTURERS

Teaching and Learning in the Time of Covid-19: Reflections of Lecturers and Students at a TVET College in Gauteng, South Africa

Years of experience as a lecturer:

College:

RESEARCH QUESTIONS:

Primary research question

3. How would you describe your experiences of teaching during the height of the COVID-19 national lockdown?
4. What challenges and opportunities did you encounter during the height of the COVID-19 national lockdown?

Secondary questions

1. How would you describe the impact of Covid-19 on education?
2. In what way do you feel personally affected by the COVID-19 pandemic?
3. How did the COVID-19 outbreak affect you and other lecturers at your campus?
4. How was teaching and learning affected?
5. In what ways do you feel that your work as a lecturer was affected by the pandemic?
6. What changes were brought by the Covid-19 pandemic to teaching?
7. How did you cope with the changes?
8. Did you receive any support from the College to cope with the new way of teaching?
 - 8.1 Whether your answer is Yes or No, please state, explain
9. What kind of support did you give your students to cope with their studies?
10. What recommendations would you make to the college to assist lecturers during the pandemic?

INTERVIEW SCHEDULE FOR STUDENTS FOCUS GROUPS

Teaching and Learning in the Time of COVID-19: Experiences of Lecturers and Students at a TVET College in Gauteng, South Africa

Year of Study:

Campus:

RESEARCH QUESTIONS:

Primary research question

5. How would you describe your experiences of teaching and learning during the height of the COVID-19 national lockdown?
6. What learning-related challenges and opportunities did you encounter during the height of the COVID-19 national lockdown?

Secondary questions

1. Think back to 2020 when the country went through a national lockdown to curb the spread of COVID-19 and ultimately shutting down campuses.
 - (a) Tell me about the experiences you had with your studies during that period.
 - (b) What went particularly well and what went wrong with your studies?
2. Think back over the past 2 years that you have been a student at this TVET College.
 - (a) What has changed with teaching and learning (your lessons)?
 - (b) What improvements have you noticed in teaching and learning?
3. Suppose that you were in charge and could make some changes that would make teaching and learning better for students during the time of pandemic disruption. What would you do?
4. What can each one of us do to make teaching and learning better during a pandemic crisis?
5. What support needs to be given to lecturers by management to cope in the event of pandemics?

INTERVIEW SCHEDULE FOR LECTURERS' FOCUS GROUP

Teaching and Learning in the Time of Covid-19: Reflections of Lecturers and Students at a TVET College in Gauteng, South Africa

Years of experience as a lecturer:

College:

RESEARCH QUESTIONS:

Primary research question

7. Can you describe your experiences of teaching and learning during the height of the COVID-19 national lockdown?
8. Please describe any challenges and/or opportunities that you encountered during the height of the COVID-19 national lockdown.

Secondary questions

1. Think back to 2020 when the country went through a national shutdown to curb the spread of COVID-19 and ultimately shutting down campuses.
 - (a) Tell me about your experiences during this period and how your job as a lecturer was impacted.
 - (b) Tell me about the challenges and opportunities that emerged in relation to your work during that period.
2. Think back to the years that you have been a lecturer in the TVET sector before and after the Covid-19 pandemic.
 - (a) What has changed with teaching and learning?
 - (b) What needs to be improved about teaching and learning?
3. Suppose that you were in charge and could make one change that would make teaching and learning during pandemics. What would you change?
4. What can TVET College management do to make teaching and learning better during the pandemic crisis?
5. What support needs to be given to lecturers by management to cope in the event of pandemics?

APPENDIX F

TURNITIN REPORT

