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Impact of COVID-19 on academic performance of students at a historically disadvantaged University in Kwazulu-Natal

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION

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ACRONYMS, ABBREVIATIONS AND KEYWORDS

ICT: Information and Communication Technology

COVID-19: Coronavirus

DHET: Department of Higher Education and Training

DBE: Department of Basic Education

WHO: World Health Organization

GPA: Grade Points Average

4IR: Forth Industrial Revolution

TL: Transformative Learning

S1-S10: Students

L1-L5: Lecturers

KZN: Kwazulu Natal

FET: Further Education and Training

Keywords: COVID 19, Academic Performance, students, lecturers, pandemic, impact, infrastructure.

ABSTRACT

The COVID-19 pandemic has significantly disrupted nearly every aspect of social life, with higher education being no exception. In response to the pandemic, many universities and colleges worldwide transitioned to online learning to adhere to lockdown regulations and social distancing measures. This method of teaching effectively minimizes both student-to-student and student-to-lecturer contact. While online learning offers convenience, many students—particularly those with limited technical and financial resources—struggle to cope due to existing economic and digital divides. This study aimed to explore the impact of the COVID-19 pandemic on students' academic performance at a historically disadvantaged university in KwaZulu-Natal. The objectives that guided this research were: to examine the impact of the COVID-19 pandemic on students' academic performance at the university; to identify the challenges students experienced during the pandemic; and to determine the kind of support that students require to enhance their academic performance during this period. A qualitative approach was employed, involving ten fourth-year students and five lecturers who were purposefully selected from the selected university. The data were analyzed using thematic analysis. The findings revealed significant challenges faced by both students and lecturers at the historically disadvantaged university in KwaZulu-Natal. Notably, a lack of resources was identified as a major obstacle for students in rural areas, complicating communication between lecturers and students. Many students lacked adequate skills to use computers and ICT-related resources due to their backgrounds, which hindered their ability to access online assessments and meet deadlines. The findings from the lecturers further corroborated the students' claims regarding these challenges. Some lecturers acknowledged that inadequate ICT resources negatively affected their teaching and students' academic performance. Addressing these issues could enhance the university's ability to foster improved academic achievement among students. With proper support for ICT integration and the provision of necessary resources, students could effectively create, administer, organize, and access instructional materials at their own pace.

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CHAPTER ONE

ORIENTATION TO THE STUDY

1.1. INTRODUCTION

The COVID-19 pandemic, which emerged in late 2019, has brought about unprecedented challenges and disruptions across the globe. In the realm of education, it has forced educational institutions to adapt rapidly to a new and unfamiliar landscape. Universities, in particular, have faced the daunting task of transitioning from traditional face-to-face teaching to remote or hybrid modes of instruction to mitigate the spread of the virus. These abrupt changes have raised concerns about their potential impact on student's academic performance, particularly in institutions grappling with various socio-economic and educational disparities. This study examines the repercussions of the COVID-19 pandemic on students' academic performance at a historically disadvantaged university in KwaZulu-Natal, South Africa. Historically disadvantaged universities in South Africa have a unique set of challenges. They serve a predominantly Black, and economically disadvantaged student population, often characterized by limited access to resources, inadequate prior educational experiences, and socio-economic challenges. These universities have been working diligently to address these disparities and provide quality education to their students. However, the outbreak of COVID-19 has posed an additional layer of complexity to their ongoing efforts.

The impact of COVID-19 on higher education has been extensively studied worldwide, revealing a multifaceted range of consequences. The rapid shift to online learning has exposed the digital divide, with disparities in students' access to technology and the internet affecting their ability to engage effectively in remote learning environments (Hodges et al., 2020). Research has shown that these technological inequalities disproportionately affect students from disadvantaged backgrounds (Chen et al., 2021). Furthermore, the abrupt transition to online or remote learning has been associated with challenges related to engagement, motivation, and mental health (Son et al., 2020; Cao et al., 2020). Students, particularly those from marginalized communities, have encountered difficulties adapting to this new educational landscape (Hao et al., 2021).

The impact of COVID-19 on historically disadvantaged universities in South Africa, like the one in KwaZulu-Natal under examination in this study, merits special attention. These universities often serve as critical pathways for social mobility and equitable access to higher education. Thus, understanding how the pandemic has affected students' academic performance in such institutions is essential for addressing immediate challenges and informing long-term strategies for improving educational outcomes in the face of adversity.

Several factors may contribute to the differential impact of COVID-19 on students' academic performance at historically disadvantaged universities. Socio-economic disparities, limited access to resources, challenges adapting to online learning modalities, and the potential exacerbation of pre-existing educational inequalities are all potential facets of this complex issue. Prior research, in the South African context, has highlighted the importance of equity in education and the need to address student disparities (Van der Berg, 2020). However, as the COVID-19 pandemic unfolds, a comprehensive understanding of its specific effects on historically disadvantaged universities is critical for developing targeted interventions and support systems.

To date, the academic literature has broadly explored the impact of COVID-19 on education. However, it has yet to delve deeply into the unique challenges faced by historically disadvantaged universities in South Africa. This study aims to contribute to the existing body of knowledge by investigating how the pandemic has influenced students' academic performance at a historically disadvantaged university in KwaZulu-Natal. By doing so, the study seeks to provide insights that can inform policy and practice to support students in historically disadvantaged institutions as they navigate the complexities of higher education during these challenging times.

1.2 BACKGROUND TO THE STUDY

The study focuses on the impact of COVID-19 on students' academic performance at a historically underprivileged University in Kwazulu-Natal. This research is motivated by the exceptional worldwide crisis caused by the COVID-19 epidemic. The global spread of the pandemic presented significant difficulties for the higher education sector, impacting both

institutions and students. This research examines a university in the Kwazulu-Natal area of South Africa with a disadvantaged history. Historically disadvantaged universities in South Africa have unique challenges compared to more privileged institutions. These universities often serve a diverse student population, many from underprivileged backgrounds and face socioeconomic hurdles in accessing and pursuing higher education.

Additionally, these institutions may need more resources and infrastructure than their established counterparts. When the COVID-19 pandemic emerged, it disrupted higher education globally. Universities worldwide were forced to adapt rapidly to the new reality of lockdowns, social distancing, and remote learning. Historically disadvantaged universities in South Africa faced significant challenges in this context, primarily due to pre-existing inequities in technology availability, internet connectivity, and living conditions. Many students needed more essential gadgets and resources to engage actively in online learning, intensifying educational disparities.

The pandemic's impact on academic performance became a pressing concern. The sudden shift to online learning and the psychological stress caused by the pandemic itself raised questions about how students at historically disadvantaged universities coped with these challenges. It became essential to assess how much academic performance was affected, considering factors like access to technology, remote learning environments, and students' overall well-being. This study sheds light on the challenges students face at a historically disadvantaged university in Kwazulu-Natal during the COVID-19 pandemic. By examining the impact on academic performance, the research aims to identify areas where support and interventions can be directed to mitigate the negative consequences and promote equitable access to higher education. Ultimately, the findings of this study contribute to a broader understanding of the pandemic's effects on education in disadvantaged settings and inform strategies for more inclusive and resilient higher education systems.

1.3 Problem Statement

Davids (2020) highlights the inequitable education system in South Africa during the COVID-19 lockdown, which resulted in the closure of educational facilities. While students in private schools and those from affluent or middle-income public schools adapted seamlessly to emergency remote learning—thanks to the widespread availability of electronic devices, internet connectivity, and support from teachers and parents—many schoolchildren in South Africa still lack access to any form of online education (Davids, 2020). According to Aucejo, French, Araya, and Zafar (2020), the COVID-19 pandemic has led to a significant proportion of students postponing their graduation (13 per cent), dropping out of classes (11 per cent), and expressing an intention to switch majors (12 per cent). Additionally, almost 50 per cent of the participants individually indicated a decline in their study hours and academic achievement in the United States (Aucejo et al., 2020). A comprehensive survey conducted by the American Veterinary Medical Association (2020) further indicates that COVID-19 has adversely impacted academic achievement. To date, research has not thoroughly examined the impact of COVID-19 on students from historically disadvantaged universities in South Africa. This study aims to investigate the influence of the COVID-19 epidemic on the academic achievement of students at a historically marginalised university. Furthermore, this research will provide valuable insights for the university to develop strategies to mitigate the effects of future incidents that may adversely affect academic performance, such as the current pandemic.

1.3.1 Purpose of the study

The objective of this study is to emphasise the influence that COVID-19 had on the academic achievement of students at the underprivileged University in KwaZulu Natal. This study aims to investigate the effects of the COVID-19 epidemic on students' academic achievement at a historically disadvantaged university in KwaZulu-Natal. To determine the difficulties encountered by students at a historically disadvantaged University in KwaZulu-Natal during the COVID-19 pandemic. To ascertain the specific help students, need to improve academic performance at a historically poor University in KwaZulu-Natal during the COVID-19 pandemic. Furthermore, this research will provide the university with valuable insights to investigate tactics to mitigate future incidents that

affect academic performance in situations comparable to the current pandemic. Therefore, it is imperative to assist students in underprivileged universities.

1.4 Aim of the study

This study aims to investigate the impact of the COVID-19 epidemic on students' academic achievements in a historically disadvantaged university in KwaZulu-Natal.

1.4.1 Objectives of this study

The following objectives will guide this study:

- To explore the impact of the COVID-19 pandemic on students' academic performance at a historically disadvantaged University in KwaZulu-Natal.
- To ascertain the challenges that students experienced during the COVID-19 pandemic at a historically disadvantaged University in KwaZulu-Natal.
- To determine the kind of support students require to enhance academic performance during the COVID-19 pandemic at a historically disadvantaged University in KwaZulu-Natal.

1.4.2 Research questions

- What is the effect of COVID-19 on students' academic performance at a historically disadvantaged University in KwaZulu-Natal?
- What challenges did students face during COVID-19 at a historically disadvantaged University in KwaZulu-Natal?
- Which support do students require to enhance academic performance during COVID-19?

1.5 Theoretical framework

The term "blueprint" or direction refers to a research framework or plan, as outlined by Grant and Osanloo (2014). The framework is grounded in an established theory within a relevant research field that aligns with and supports the hypothesis of the investigation. Researchers often utilise this design to guide their investigations, serving as the foundational basis for constructing a research project. Utilising a theoretical framework

offers substantial advantages for any research endeavour. The framework provides a structure for illustrating how a researcher establishes their study's philosophical, epistemological, methodological, and analytical aspects (Grant & Osanloo, 2014). According to the transformational hypothesis posited by Mezirow (1997), learning involves leveraging previous knowledge to understand new or altered experiences, which subsequently informs decision-making and behaviour. The premise is based on the notion that students can modify their thinking in reaction to fresh knowledge or alterations. The elaboration of this theory will be presented in chapter 2.

1.6 Research Methodology

1.6.1 Research Paradigm

Paradigms refer to comprehensive theories or perspectives (Perera, 2018). Research paradigms encompass the collective perspectives and agreements among scientists regarding the methods and approaches used to comprehend and tackle challenges (Perera, 2018). Research paradigms serve as frameworks for scientists to address three fundamental inquiries: ontology, epistemology, and methodology (Perera, 2018). Notable research paradigms include positivism, interpretivism, post-positivism, critical theory (ideology), constructivism, and pragmatism. The research framework for this study is primarily grounded in the interpretivist paradigm, which emphasises a qualitative approach to comprehending intricate social processes (Kumar, 2019). This study aims to investigate and analyse the experiences, perceptions, and interpretations of the effects of COVID-19 on academic achievement at a historically underprivileged University in Kwazulu-Natal. The details of this paradigm will be presented in Chapter 3.

1.6.2 Research design

Durrheim (2004) defines *research design* as a systematic blueprint that establishes the comprehensive structure for gathering data. Durrheim (2004) defines *research design* as a deliberate approach to choosing participants, study environments, and data collection methods to address specific research inquiries. Additionally, they assert that a well-constructed study strategy's primary objective is to generate credible outcomes. Durrheim (2004) defines *research design* as a strategic framework that connects research

questions with the execution of research strategy. This study adheres to a qualitative research design, which will be further examined in Chapter 3.

1.6.3 Synopsis of Methodology

The researcher deliberately chose ten fourth-year students and five teachers as participants in the study due to their extensive teaching and learning experience before and after the COVID-19 pandemic. These individuals are expected to possess higher expertise regarding the subject matter being investigated (Kumar, 2019). The participants were provided with a clear explanation of the aims and objectives, and their informed consent was acquired. Participants were individually supplied with instructions and clear guidance on conducting semi-structured interviews.

A structured interview schedule was utilised to direct the interview procedure. The questions were designed to address all of the research inquiries. Hence, the interview guide is comprised of open-ended inquiries, which hold significance in a semi-structured interview and serve to prevent straying from the interview schedule (Kumar, 2019). The interviews were recorded in audio format, with the participants' consent. The audio-recorded data were transcribed verbatim. The duration of the interviews ranged from 60 to 90 minutes.

1.6.4 Data Gathering Method

1.6.4.1 Interview

The interview is a means of generating data compatible with a specific approach (Wahyuni, 2012). Interviewing is a precious method for collecting individuals' perspectives while developing research hypotheses.

1.6.5 Data Analysis

1.6.5.1 Thematic analysis

Thematic analysis is a data analysis technique employed to uncover, analyse, and present patterns or themes within the data. The study adhered to the six stages of theme analysis proposed by Braun and Clarke (2019):

Phase 1: Acquainting oneself with the data.

Phase 2: Generating preliminary codes.

Phase 3: Theme exploration.

Phase 4: Evaluating prospective themes.

Phase 5 is establishing and assigning names to various themes.

Phase 6: Report generation.

1.6.6 Ethical Consideration

This study adhered to all ethical standards, protocols, and regulations. Ethical concerns revolve around the principles of human dignity, autonomy, and individuals' freedom to take part willingly (Tracy, 2019). There was no violation of privacy, as the data was obtained with the participants' consent and convenience. Pseudonyms were employed to safeguard the identities of the participants.

1.7 Definition of operational terms

1.7.1 COVID-19 Pandemic

This term refers to the global outbreak of the novel coronavirus, SARS-CoV-2, declared a pandemic by the World Health Organization (WHO) in March 2020. This study encompasses the period from the initial outbreak in 2019 up to the time of data collection, during which the virus significantly affected daily life and education.

1.7.2 Academic Performance

For this study, academic performance refers to the overall achievement of students in their educational pursuits. It includes measures such as grade point averages (GPA), examination scores, course completion rates, and other relevant indicators of educational success.

1.7.3 Historically Disadvantaged University

This term identifies an institution of higher education in South Africa that historically served underprivileged and marginalized communities. These universities were established during the apartheid era and typically aim to provide accessible education to a diverse student body, often with limited resources.

1.7.4 Kwazulu-Natal

This province is located on the eastern coast of South Africa. This study represents the specific geographical area of the historically disadvantaged university under investigation.

1.7.5 Remote Learning

This concept refers to the mode of education delivery where students access educational content, engage in learning activities, and communicate with instructors and peers through digital technologies and the Internet. It encompasses various formats, including online classes, video lectures, discussion forums, and other virtual learning environments.

1.7.6 Equity in Education

In this context, equity in education refers to the principle of fairness and justice in providing all students, regardless of their background, with equal opportunities and resources to access and succeed in higher education, particularly during the challenges posed by the COVID-19 pandemic.

1.7.7 Digital Divide

The digital divide signifies disparities in access to and usage of digital technologies and the internet among different groups in society. This study relates to variations in students' access to necessary devices, internet connectivity, and digital literacy skills required for remote learning during the pandemic.

1.7.8 Student Well-being

Student well-being encompasses students' physical, mental, and emotional health and welfare. It includes psychological stress, social isolation, and overall quality of life, which may influence the pandemic and its educational effects.

1.7.9 Interventions

Interventions refer to measures, policies, or actions implemented by educational institutions or authorities to address challenges and support students in adapting to the changes brought about by the pandemic, such as online learning support, mental health services, or financial assistance programs.

1.7.10 Resilience

In this study, resilience represents the ability of students and educational institutions to adapt, recover, and maintain their functioning and educational objectives despite the disruptive impact of the COVID-19 pandemic.

1.8 Intended contribution to the body of knowledge

This study aims to significantly contribute to the body of knowledge in several key areas. Firstly, it seeks to provide empirical insights into the challenges and disruptions faced by students at a historically disadvantaged university during the COVID-19 pandemic, shedding light on the digital divide, student well-being, and equity in education. Additionally, this research endeavours to identify the effectiveness of interventions implemented to mitigate these challenges and assess the resilience of both students and the institution in adapting to the new learning environment. By examining these aspects within the context of a historically disadvantaged university, it aims to offer valuable lessons and recommendations that can inform policy and practice not only in similar institutions but also in higher education settings globally, contributing to the broader understanding of the pandemic's impact on education and strategies to mitigate its adverse effects.

1.9 Preliminary Chapter Division

Chapter 1: Introduction

This chapter serves as an introduction to the study, providing an overview of its orientation, the research problem statement, its purpose, research objectives, questions, and its contribution to the body of knowledge. Additionally, it outlines the operational definitions of key terms and offers an overview of the entire research study.

Chapter 2: Theoretical Framework and Literature Review

In this chapter, the study delves into the theoretical framework underpinning its research while conducting a comprehensive review of relevant literature. This literature review encompasses the theoretical foundations of the study.

Chapter 3: Research Design and Methodology

This chapter meticulously outlines the research design and methodology employed in the study. It elaborates on data collection procedures, research instruments, participant selection criteria, data organization and analysis plans, and ethical considerations guiding the research process.

Chapter 4: Data Analysis and Interpretation

This chapter presents an exhaustive analysis and interpretation of the collected data, shedding light on the study's findings and their significance.

Chapter 5: Summary, Conclusions, and Recommendations

This chapter encapsulates the study's summary, conclusions, and recommendations, offering insights into its implications and suggesting avenues for further research studies.

1.10 Chapter Summary

This chapter provides the study's orientation, problem statement, research purpose, objectives, questions, contribution to knowledge, operational definitions, and overall research plan. The subsequent chapter will delve into the theoretical framework and literature review.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The advent of the Coronavirus Disease 2019 (COVID-19) pandemic has triggered an unprecedented global disruption, affecting nearly every facet of human life. One of the most profoundly impacted sectors has been education. In South Africa, as in many other parts of the world, the educational landscape underwent significant transformations in response to the pandemic. The nation's educational institutions, from primary schools to universities, encountered unprecedented challenges and had to adapt rapidly to ensure continuity of learning while safeguarding the health and well-being of students, educators, and the wider community. This introduction delves into the multifaceted impact of COVID-19 on education in South Africa, exploring the measures taken, the hurdles faced, and the innovative solutions devised to navigate these uncharted waters. From school closures to adopting remote learning, this analysis sheds light on the evolving educational paradigm in a nation striving to balance educational pursuits with the imperatives of public health.

2.2. Education System in South Africa before the COVID-19 Pandemic

The education system in South Africa has experienced substantial transformations over its history. Before the COVID-19 epidemic, several studies examined the condition of South Africa's education system. These studies have focused on essential factors such as governance, difficulties faced, and the availability of educational opportunities (Spaull & Van der Berg, 2020; Soudien et al., 2022). In South Africa, the education sector is regulated by two national departments: the Department of Basic Education (DBE) and the Department of Higher Education and Training (DHET) (Mhlanga & Moloi, 2020). According to Mhlanga and Moloi (2020), the DBE oversees primary and secondary schools, while the DHET oversees postsecondary education and vocational training. Before 2009, the consolidation of these two departments resulted in a unified Department of Education (Mhlanga & Moloi, 2020). Obtaining education, especially at the higher

education level, has been challenging in South Africa due to a scarcity of accessible slots (Mhlanga & Moloi, 2020).

The country has faced inequalities in educational outcomes, with students from different socioeconomic backgrounds experiencing disparities (Landa et al., 2021). The government has tried to address these challenges, but access to education remains a significant concern. The education system in South Africa faced various challenges before the COVID-19 pandemic. These challenges include limited resources, infrastructure problems in poor and rural schools, racism, and difficulties faced by girls (Pillay, 2021). In addition, the education system needed to prepare to deal with emergencies such as the COVID-19 pandemic, leading to disruptions in teaching and learning (Landa et al., 2021).

The COVID-19 pandemic has accelerated the digital transformation of education in South Africa (Mhlanga & Moloi, 2020). The Fourth Industrial Revolution (4IR) tools were increasingly used during the pandemic, with educational activities shifting to remote (online) learning (Mhlanga & Moloi, 2020). However, the digital divide and high costs a+ssociated with technology access still need to be addressed in implementing online teaching and learning (Olawumi & Mavuso, 2022). The COVID-19 pandemic has necessitated alternative strategies to support teaching and learning in South African schools (Olawumi & Mavuso, 2022). Traditional face-to-face pedagogical strategies were disrupted, leading to the exploration of blended learning approaches and the integration of information and communication technology (ICT) (Olawumi & Mavuso, 2022). The pandemic has highlighted the need for policies that expedite the integration of ICT into the educational system (Olawumi & Mavuso, 2022).

The COVID-19 pandemic has exposed inequalities and disparities in the South African education system (Landa et al., 2021; Ajani, 2023). Student contexts, such as socioeconomic backgrounds and access to resources, have played a significant role in delivering education during the pandemic (Landa et al., 2021). Efforts are needed to address these inequalities and ensure equitable access to education. The education system in South Africa, before the COVID-19 pandemic, faced various challenges,

including limited resources, infrastructure problems, and inequalities in access to education. The pandemic has accelerated the digital transformation of education, highlighting the need for alternative strategies and the integration of ICT. Addressing the existing disparities and ensuring equitable access to education remains crucial for the future of the education system in South Africa.

2.3. The outbreak of the pandemic

The Coronavirus Disease 2019 (COVID-19) was first identified as a type of pneumonia with an unknown etiology in Wuhan, Hubei Province, China, in December 2019 (Rajab et al., 2020). The International Committee on Virus Taxonomy (ICTV) formally classified COVID-19 as a newly discovered coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Rajab et al., 2020). The COVID-19 outbreak was declared a pandemic by the World Health Organisation (WHO) in March 2020, as it rapidly and widely spread in China and worldwide (Rajab et al., 2020). Various countries, particularly the South African government, took action to reduce the spread of the disease by implementing various measures. The measures encompassed travel limitations, compulsory isolation periods, procedures for maintaining physical distance, bans on public gatherings, shutdowns of educational institutions and companies, rules for self-isolation, mandates for remote work, curfews, and harsh confinement measures (Rajab et al., 2020).

These initiatives have had a substantial influence on schooling globally. Temporary closures or localised shutdowns of educational institutions were implemented in 192 countries, impacting almost 1.7 billion pupils globally (Rajab et al., 2020). Universities have rescheduled or cancelled all on-campus events to reduce gatherings and mitigate the spread of the virus (Rajab et al., 2020). The shift to online education was essential for continuing education during the pandemic (Rajab et al., 2020). Researchers have examined the effects of the COVID-19 pandemic on online education in several settings. A study undertaken at Alfaisal University's College of Medicine (COM) in Riyadh, Saudi Arabia, examined the influence of the pandemic on online education (Rajab et al., 2020). The study revealed that 76% of participants intended to incorporate the knowledge and skills acquired through online platforms during the pandemic into their professional

practice. This indicates a favourable influence on online medical education (Rajab et al., 2020).

Nevertheless, scholars have also forecasted that the pandemic may negatively influence online education, pointing out difficulties in the shift to remote learning and the broader economic consequences (Rajab et al., 2020). Conversely, several analysts argue that the pandemic may result in the broader embrace of online and technology-driven education. This is because online education was already witnessing significant expansion and uptake before the outbreak of COVID-19 (Rajab et al., 2020).

The negative impact of the pandemic on education is not limited to medical education. A cross-sectional survey conducted on the impact of the pandemic on the educational, psychosocial, and behavioural aspects of children found that the closure of schools and activity centres for more prolonged periods had debilitating effects on educational, psychological, and developmental attainment (Pandi et al., 2022). The survey also highlighted the vulnerability of children to psychological stressors like social isolation and home confinement, emphasising the need for immediate intervention (Pandi et al., 2022). The challenges of remote teaching during the pandemic have been identified in various studies. A study on emergency remote teaching of foreign languages at Saudi universities found that teachers faced challenges in remote assessment and lacked access to up-to-date technologies (Latif & Alhamad, 2023). Another study focused on the effects of the COVID-19 school lockdowns on the language and math performance of students in elementary schools, highlighting the learning delays experienced by students during the lockdowns (Oostdam et al., 2023). The study also discussed the implications for educational practice and the issue of inequality between students (Oostdam et al., 2023).

The shift to remote learning during the pandemic has raised concerns about student engagement and the efficacy of the learning encounter (Malik et al., 2022). Researchers have identified problematic aspects of remote education, such as students' and teachers' anxiety in web-based learning environments and the lack of presence in recorded lecture videos (Almutairi et al., 2021). Additionally, cheating during asynchronous online tests has been observed when students are not supervised (Almutairi et al., 2021). Thus, the

COVID-19 pandemic has had a significant impact on education worldwide. The closure of educational institutions and the implementation of remote learning have posed challenges for students and teachers. While some studies have highlighted the positive impact of online education during the pandemic, others have raised concerns about the challenges and potential adverse effects. The long-term implications of the pandemic on education and the measures taken to mitigate its impact require further research and intervention.

2.4. Theoretical Framework

The term "blueprint" or direction refers to a research framework or plan, as described by Grant and Osanloo in 2014. The framework is derived from a preexisting theory in a relevant research field, aligning with and supporting the study's hypothesis. Researchers often utilise this design to create their own residence or study investigation. It serves as the fundamental basis for constructing a research project. Utilising a theoretical framework confers notable advantages to a research endeavour. The framework provides a structure for illustrating how researchers establish their studies' philosophical, epistemological, methodological, and analytical aspects (Grant & Osanloo, 2014). Ravitch and Carl (2016) concur that the theoretical framework is a guiding tool for researchers to situate and give context to formal ideas inside their studies. This situates their study within an academic framework.

Moreover, the theoretical framework acts as the central focus of the investigation and is connected to the research subject being examined. Consequently, it influences a researcher's research design and data analysis approach. The theoretical framework also guides the selection of data gathered for a specific study (Uher, 2019). The theoretical framework aids the researcher in selecting the most suitable research approach, analytical tools, and processes for their research issue. Akintoye (2015) states that it enhances the importance and applicability of research results.

2.4.1 The Transformative Learning Theory

The transformative theory holds that we are the essence of human beings. Learning is applying prior interpretation to grasp new or revised interpretations of one's experience and using this as a guide for action (Mezirow, 1997). It is predicated on the concept that students can adapt their thinking in response to new information or changes. According to preliminary research by Mezirow (1997), adults do not smear their old understanding of new conditions but instead discover the need to look at fresh perspectives to gain comprehension as things have changed. This gave rise to transformative learning theory.

This study is grounded in Mezirow's (1997) concept of transformative learning. According to this concept, learning occurs when students are presented with an unforeseen or challenging scenario. Transformative learning occurs when students connect with their surroundings and fully include themselves in acquiring knowledge (Mezirow, 1997). Mezirow's concept makes a substantial contribution to our understanding of transformative change. A practical approach and set of tools for addressing future challenges is derived from a redefined interpretation standpoint (Mezirow, 1997). The COVID-19 pandemic profoundly impacted the global educational system, resulting in significant modifications and transformations in higher education (Noori, 2021; Mncube et al., 2021). Mezirow (1997) posits that a confusing position triggers cognitive differences and significant educational transformations. This theory applies to this study as it investigates students' educational experiences during an abrupt transition at a specific underprivileged university in Kwazulu-Natal.

According to Mezirow (1997), the idea of transformative learning posits that when students have a favourable learning encounter, they construct significance, resulting in alterations in their attitudes, behaviours, and understanding. According to this concept, students are given challenging assignments when there are significant changes in how things are done, and they should be motivated to think analytically and logically to evaluate their understanding of the learning process (Hashemi et al., 2021). Students in impoverished nations may encounter challenges in obtaining resources due to limited facilities; yet, this constraint is comprehensible and substantially affects students' academic achievements in tertiary education. Academics should implement pragmatic

strategies and adapt the educational process to novel standards to enhance student's learning in the face of cognitive dissonance. This transition will instil in students a feeling of agency and introspection, leading to heightened levels of learning drive (Noori, 2021; Maree, 2022).

The COVID-19 pandemic has disrupted educational systems worldwide, challenging traditional learning paradigms (Stanistreet et al., 2021). Historically disadvantaged universities in KwaZulu-Natal, South Africa, have encountered unique challenges as they grapple with the pandemic's impact on academic performance (Gamede et al., 2022). This study explores transformative learning theory and its applicability to understanding the impact of COVID-19 on students' academic performance at a historically disadvantaged university in KwaZulu-Natal. The transformative learning theory, developed by Jack Mezirow, emphasises how individuals undergo profound cognitive shifts in their beliefs, perspectives, and assumptions. Transformative learning occurs when students critically reflect on their experiences, leading to transformative change in their understanding and behaviour. This theory aligns with the concept of 'disorienting dilemmas,' where students are confronted with situations that challenge their existing knowledge, fostering a deeper level of learning.

The outbreak of COVID-19 forced historically disadvantaged universities to transition to remote learning modalities. This abrupt shift created disorienting dilemmas for academics and students (Out et al., 2023). Abidemi et al. (2023) argue that the sudden change in learning environments, technological challenges, and uncertainties regarding assessments and academic progress disrupted familiar learning routines, fostering a need for transformative learning experiences. The pandemic prompted students to engage in reflective learning as they navigated the challenges of remote education. Students had to critically evaluate their learning strategies, adapt their study habits, and develop new approaches to succeed academically (Onyema et al., 2020). The transformative learning theory underscores the importance of critical self-reflection, encouraging students to reevaluate their perspectives on education and adapt to new circumstances.

Van Schalkwyk (2021) posits that historically disadvantaged universities faced unique challenges during the pandemic, including limited technology access and socio-economic disparities. Transformative learning can bridge these gaps by encouraging students to examine societal inequalities critically, advocate for change, and actively seek solutions to these disparities (Ajani, 2023). The theory's emphasis on fostering agency aligns with the need for students to become proactive agents in overcoming challenges. Nyashanu et al. (2020) opine that the pandemic's impact on academic performance prompted students to develop coping strategies, resilience, and adaptability. The transformative learning theory highlights how individuals can draw from their experiences to cultivate personal growth and transformation. Ojo et al. (2020) assert that as students navigate the challenges of remote learning and uncertainties, the theory provides a framework for harnessing these experiences for positive change. Faculty members also underwent transformative learning as they navigated new teaching methods (Mhlanga & Moloi, 2020). Academics had to reflect critically on their pedagogical approaches, adapt to online instruction, and find innovative ways to engage students effectively (Soudien et al., 2022). This adaptive process aligns with the transformative learning theory's emphasis on change and critical reflection.

The transformative learning theory also offers a valuable lens for understanding the impact of COVID-19 on academic performance at historically disadvantaged universities in KwaZulu-Natal (Maphalala & Ajani, 2023). The disorienting dilemmas posed by the pandemic prompted students and academics to engage in reflective learning, adapt to new circumstances, and seek personal and systemic transformation. By applying the principles of transformative learning, historically disadvantaged universities can empower students to navigate the challenges posed by the pandemic and emerge with enhanced academic performance, resilience, and a commitment to positive change.

Transformative learning, also known as transformational learning, highlights the potential for pupils to alter their cognitive processes in reaction to novel information. Jack Mezirow founded transformative learning. Jack Mezirow formulated the transformative learning theory based on his research on older women who returned to education. Mezirow's early research suggests that individuals do not just use their existing knowledge in new

situations. Instead, they realise that to develop a new understanding of changing conditions, they must embrace new perspectives (Mezirow, 1991). According to Mezirow, this theory elucidates the process by which adult students make sense of their experiences, the influence of social and other systems on this process, and how meaning modification changes when students consider them ineffective (Mezirow, 1991).

Transformative learning of the inner life's significance, depth, and complexity has changed, but this is just one change among many that led to the development of the contemporary world system, including social, economic, cultural, demographic, political, and technological changes (Braudel, 1986). The idea of transformative learning and all the accompanying theories and methods is now a "mature," loosely defined field of academia and practice. We still need to gain complete knowledge of the potential and methods of transformative learning (Reimers, 2022b). Instead, we mean that there are significant strands of empirical and theoretical work on various issues and situations and that critical understandings, critiques, and disputes are well-established.

However, the objectives of transformative learning are basically to help individuals solve various challenges and develop their mental health. In addition, transformative education aims to better people and create a better world. The idea of transformative learning and all the accompanying theories and methods is now a "mature," loosely defined field of academia and practice. We still need to gain complete knowledge of the potential and methods of transformative learning. Instead, we mean that there are significant strands of empirical and theoretical work on various issues and situations and that essential understandings, critiques, and disputes are well-established.

Transformative learning is a theoretical framework that primarily emphasises learning in adults and young adults (Le Grange, 2021). Transformative learning, also known as transformational learning, centres around the concept that pupils can modify their cognitive processes in response to novel information (Reimers, 2022b). Jack Mezirow is widely recognised as the progenitor of transformative learning. Jack Mezirow originated the transformational learning theory from his research on older women who pursued further education. Mezirow's preliminary investigation prompted him to postulate that

adults must employ their preexisting comprehension in novel circumstances. Instead, individuals must adopt fresh viewpoints to attain a novel comprehension of evolving circumstances.

Mezirow postulated that children possessed significant educational and instructional prospects linked to their prior experiences. Mezirow discovered that engaging in critical contemplation and evaluation could bring about a profound alteration in one's thinking. Adult education and adult learning play a crucial role in this idea, as children frequently do not undergo the same level of transformation in their learning experiences. Mezirow discovered that adult learning entails revisiting our childhood beliefs and thoughts and allowing critical reflection and instruction to transform our current beliefs and understanding. Mezirow's theory has evolved into the notion that our worldview transforms as we acquire new knowledge, enabling us to comprehend novel thoughts and ideas more effectively.

The transformative theory holds that we are the essence of human beings. Learning is applying prior interpretation to grasp new or revised interpretations of one's experience and using this as a guide for action (Mezirow, 1997). It is predicated on the concept that students can adapt their thinking in response to new information or changes. According to preliminary research by Mezirow (1997), adults do not smear their old understanding of new conditions but instead discover the need to look at fresh perspectives to gain comprehension as things have changed. This gave rise to transformative learning theory.

Mezirow (1997) introduced the concept of transformative learning, which posits that learning occurs when pupils are confronted with an unforeseen or demanding circumstance. Transformative learning occurs when students connect with their surroundings and effectively incorporate it into acquiring knowledge (Mezirow, 1997). Mezirow's concept makes a substantial contribution to our understanding of transformative change. A practical approach and set of resources for addressing future challenges is derived from a worldview that has significantly changed meaning (Mezirow, 1997). The COVID-19 pandemic profoundly impacted the global educational system, resulting in significant adjustments and alterations in higher education (Noori, 2021).

Mezirow (1997) posits that when individuals encounter a confusing position, it triggers cognitive differences and significant educational transformations. This theory is appropriate for this study since it investigates students' teaching and learning experiences during a dramatic transformation at a disadvantaged institution in Kwazulu-Natal.

According to Mezirow (1997), the idea of transformative learning posits that when students have a favourable learning encounter, they construct significance, resulting in alterations in their attitudes, behaviours, and understanding. According to this concept, students are given challenging assignments when there are significant changes in how things are done, and they should be motivated to think analytically and logically to evaluate their understanding of the learning process (Hashemi et al., 2021). Students in impoverished nations may need help obtaining resources due to limited facilities. However, this constraint is comprehensible and substantially impacts students' academic achievements in higher education (Gittings et al., 2021). To enhance students' learning in the face of cognitive dissonance, academics should implement practical methodologies and adapt the learning process to new standards. This adjustment will afford pupils a perception of agency and introspection, leading to heightened motivation for learning (Noori, 2021).

2.4.2. Different Stages of Transformative Learning

Turner (2004) identifies various phases of transformative learning. Transformative learning encompasses a profound change not just in the execution of tasks but also in the way one perceives and understands one's existence and the act of watching. Furthermore, transformative learning is arduous, laborious, and monotonous; inducing any alteration in any aspect can be demanding. Furthermore, transformative learning entails enduring, substantial, self-initiated transformations; the differences are remarkable and profound. Additionally, researchers specialising in consciousness and awareness have documented several routes facilitating the change process. Furthermore, transformative learning can be facilitated through various means such as technology, machinery, equipment, tools, methods, procedures, experiences, coaching, teaching-learning methodologies, processes, communication skills, curriculum, and instruction approaches. Conversely, the ultimate phase of transformative learning

encompasses four distinct stages: identity formation, cognitive processing, behavioural changes, and outcomes.

2.4.3. Transformational Learning Theory and Covid 19

The coronavirus disease 2019 (COVID-19) pandemic has changed people's lives worldwide, especially among students. According to the educational philosophy known as transformative learning, a person's worldview can be profoundly changed by deliberate contemplation (cognitive rationality), revelations (extrarational), or social transformation (social critique). The transformative learning (TL) theory explains how students experience dramatic, fundamental changes in how we and the world we live in (Wang & Huang, 2021). The unique aspect of COVID-19 is that it could represent a single perplexing situation for many individuals (Jacob et al., 2020). Some studies have already established the psychological effects of COVID-19 on students (Mahaye, 2020; Ajani & Khumalo, 2023). Therefore, COVID-19 presents a unique chance to learn more about how students perceive and react to the same life-changing event in and outside the classroom (Aristovnik et al., 2020).

Traditional thinking holds that one or more processes —cognitive rationality, extrarational reasoning, and social critique — are responsible for transformative learning (Le Grange, 2021). The cognitive-rational process is predicated on the student encountering a perplexing situation, critically considering the assumptions that led to the dilemma, reflectively conversing with others, and then taking some action. Mezirow (1991) outlines ten stages of the perspective-transformation process, beginning with (1) a perplexing predicament that serves as the foundation for (2) an investigation of the guilt or shame that follows the crisis or dilemma. In the third phase (3), students critically evaluate the guiding assumptions that underlie their current meaning perspective and reflect on them. The fourth realisation — that others share one's private concern and (often) a public one — comes next. Here, students realise that others have dealt with and gone through comparable transformations and struggles. In the following phase, Students in grade 5 investigate alternate connections, roles, and acting methods. An additional phase is added to this one when students (6) plan new courses of action and (7) study new information to effect these courses of action. After (8) students (provisionally) try out these

new roles, they (9) develop (self-) competence and (10) reintegrate into their lives by using a new, altered (meaningful) viewpoint.

Given that the reality of the new normal has involved a significant transformation of education and training due to COVID-19 impacts, global higher education is one of the sectors experiencing significant digital change (Dwivedi et al., 2020). Secondary schools in developing countries have shifted significantly to online learning due to COVID-19's efforts to distance themselves from society and sustain service in times of disaster (Krishnamurthy, 2020).

2.4.4. Justifications for Using Transformative Learning Theory

The transformative learning theory is a highly relevant and practical framework for understanding the impact of the COVID-19 pandemic on the academic performance of students at a historically disadvantaged University in KwaZulu-Natal (Ajani, 2023). This theory provides a robust justification for its application in analysing and interpreting the multifaceted challenges and changes students faced during this unprecedented crisis. The COVID-19 pandemic created a profoundly disorienting dilemma for students as they suddenly had to shift to remote learning, adapt to online platforms, and navigate the uncertainties of the new educational landscape. The transformative learning theory asserts that such dilemmas are catalysts for transformative change. By critically reflecting on their experiences, students were compelled to reevaluate their pre-existing assumptions, beliefs, and approaches to learning, aligning with the central tenets of transformative learning (Le Grange, 2021).

As students grappled with challenges such as limited technology access, socio-economic disparities, and disrupted routines, they were prompted to adapt and develop new strategies for learning (Aborode et al., 2020). The transformative learning theory highlights that these adaptive responses lead to personal growth and transformation. In the context of the pandemic, students' ability to adapt to remote learning and overcome obstacles directly correlates with the transformative learning process. The pandemic forced students to reconsider education's value, significance, learning methods, and academic goals. The transformative learning theory asserts that transformative change

involves a shift in perspective and values (Landa et al., 2021). The pandemic-induced changes in students' learning experiences, the re-evaluation of the importance of education, and the recognition of their resilience align with this theoretical underpinning (Ajani & Khumalo, 2023).

The theory places more emphasis on the educational classroom environment in order to promote the professional development of teachers for effective teaching and learning processes. In addition, the theory encourages students to develop various learning experiences that will assist them in their studies (Taylor, 2007).

The theory focuses on sustaining and adjusting students' epistemological changes. Transformative learning also focuses on irreversibility, sustainability, meaning changes, adjustments in plans and schemes, and epistemological changes. The theory promotes effective communication based on good relationships and trust that will translate and transform learning activities, making learning permanent (Taylor, 2007). Transformative learning involves altering how people see the outside world, their experiences, and their communication styles. The idea of transformative learning is applicable not just in education and learning but across all disciplines (Spaull et al., 2020).

In the area of education, Jack Mezirow created transformative learning. It entails many steps, including observation, affecting changes in activities, improving, moving forward, and utilising cutting-edge approaches, methods, suggestions, and proposals. The transformational learning process model consists of contextual border crossing, dissonance, personalising, processing, and connecting. The transformative learning theory offers a comprehensive and compelling justification for its application in analysing the impact of the COVID-19 pandemic on the academic performance of students at a historically disadvantaged University in KwaZulu-Natal. By providing insights into how students navigated disorienting dilemmas, adapted to challenges, experienced personal growth, shifted perspectives, and exercised agency, the theory enhances our understanding of the complex dynamics that shaped students' learning experiences during this transformative period (Black et al., 2020).

2.5. The outbreak of the COVID-19 pandemic

The Coronavirus Disease 2019 (COVID-19) was initially recognised as pneumonia of uncertain etiology in Wuhan, Hubei Province, China, in December 2019. Subsequently, the World Health Organisation (WHO) confirmed that COVID-19 is caused by a newly discovered strain of coronavirus called severe acute respiratory syndrome coronavirus (SARS) (WHO, 2020). Due to the rapid global spread of the COVID-19 epidemic, the World Health Organisation (WHO) officially classified it as a pandemic in March 2020. The South African government implemented various measures to mitigate the potential transmission of diseases. The measures implemented encompassed travel limitations, mandatory isolation periods, maintaining physical distance, prohibiting public gatherings, shutting down educational institutions, suspending business operations, practicing self-isolation, mandating remote work, imposing curfews, and implementing lockdowns (Arndt et al., 2020; Jacob et al., 2020; Ajani, 2023).

Several nations worldwide implemented lockdowns or curfews as a preventive measure against the swift transmission of the virus (Motala, 2020; Ardington et al., 2021). These measures may have adversely affected global education. As stated by Sahu (2020), educational institutions in 192 nations throughout the globe have temporarily shut down or enacted localised closures, impacting over 1.7 billion students worldwide. Universities have either delayed or cancelled all on-campus activities to reduce gatherings and mitigate the spread of the illness (Sahu, 2020).

Multiple studies have been undertaken in Europe, Canada, the United States of America, Australia, Tanzania, Nigeria, Uganda, and South Africa (Mahlaba, 2020; Ardington et al., 2021; Ajani, 2022). This study aims to enhance the existing knowledge regarding the influence of COVID-19 on the school system, particularly in the KwaZulu-Natal region. In a study conducted in Spain, Gonzalez, de la Rubia, Hincz, Comas-Lopez, Subirats, and Fort (2020) observed variations in student achievement between the pre-COVID-19 period and during the pandemic. The study conducted a comparative analysis of students' academic performance in 2017, 2018, and 2020. The findings revealed statistically significant disparities in students' performance over the mentioned years, explicitly

indicating that their accomplishments in 2017 and 2018 were much superior to those in 2020 (Gonzalez et al., 2020).

2.6. Impact of the Coronavirus Pandemic on Education

The South African Government promptly executed mitigation strategies to minimise learning disruptions, encompassing the adoption of online educational paradigms (Shammi et al., 2021). Motala and Menon (2020) assert that while the online platform facilitates ongoing student learning, it also entails numerous adverse ramifications. However, it negatively affects children's academic performance, causing cognitive interruptions and evaluative disturbances. This impact is more severe for pupils from low-income homes (Hossain, 2021a). The closure of educational institutions has had a significant impact on around 1.5 billion pupils globally, according to the United Nations (2020). The COVID-19 pandemic led to the closure of educational institutions worldwide, affecting about 60% of the global student population (UNESCO, 2022). Based on simulated statistics, approximately 31% of youngsters globally cannot use digital gadgets and internet platforms (World Bank, 2021). Approximately 50% of impoverished secondary students in Bangladesh have access to a television-based educational programme, as indicated by a study conducted by Dutta and Smita in 2020.

In a different study conducted by Noori (2021) focusing on Afghanistan, it was found that students at Takhar University expressed a need for more satisfaction with the online teaching and learning methods implemented during the COVID-19 epidemic. The investigation above also unveiled that nearly all participants concurred that the COVID-19 epidemic had adversely impacted their educational pursuits. Students expressed a sense of having not engaged in academic study for an extended period. Additionally, numerous students voiced dissatisfaction with the limited availability of educational materials and their inability to buy internet packages, which they perceived as costly (Noori, 2021). Onyema, Eucharia, Gbenga, Roselyn Daniel, and Kingsley (2020) conducted a study in Nigeria which confirmed that the closure of schools in the West African country has a detrimental effect on students' desire and involvement in learning, thereby leading to a decline in the quality of education. According to Onyema et al. (2020),

the research found that school closures have caused numerous challenges for children and teachers in nations with little resources.

The primary challenges associated with online education encompass the limited availability of Internet connectivity in provincial and rural regions, the speed and expense of Internet services, the accessibility of electronic devices for Internet access, and the absence of substantial interaction between students and lecturers (Mohammed, 2020). To enhance online education, it is recommended to provide electronic devices for internet access, improve internet speed, offer affordable or accessible internet packages during the pandemic, provide professional training for instructors, and promote increased interaction between students and teachers (Mohammed, 2020).

Mohammed's (2020) study found that the smartphone was the predominant device utilised by students to access online content, followed by the laptop, while the personal computer was the least utilised tool. It is essential to acknowledge that many students may require access to online education because they need more resources or tools due to the economic and digital disparity. The efficiency of online learning is hindered by unequal access to computers and the Internet (Gumede & Badriparsad, 2022).

The unexpected coronavirus (COVID-19) pandemic has impacted nearly every industry, including higher education institutions worldwide (Adedoyin & Soykan, 2020). Most nations worldwide switched to online instruction during this crucial period of the COVID-19 epidemic (Bokayev et al., 2021). The COVID-19 outbreak, as anticipated, had significant adverse effects on students' expectations and academic performance because many students were unable to go to school, and those who are less privileged found it challenging to have access to various social media platforms that were used to promote the teaching and learning process. Various studies have examined the impact of COVID-19 on students' academic performance (Mhlanga & Moloi, 2020; Le Grange, 2021; Reimers, 2022; Maphalala & Ajani, 2023). According to Barry et al. (2018), stress may be a contributing factor in some of the issues, as may poor financial situation (Carter et al., 2020), as well as academic and institution-based issues, such as a lack of the necessary infrastructure to support self-teaching (Owens et al., 2020). However, there were some

achievement gaps before COVID-19, which are anticipated to widen as the pandemic progresses.

COVID-19 has had a negative impact on the students because they were forced to learn in different ways, which they need to get used to, and there are no physical teachers primarily to guide them (Soudien et al., 2022). Owolabi (2020) argued that the changes in the students' learning process have a negative impact on the students' emotions, which may change their perceptions towards education. However, the psychological and, at the same time, emotional impacts can bring about depression and, at the same time, anxiety, negatively impacting students' perceptions of social-emotional development (Baloran, 2020).

This is a serious matter because students are required to learn in an environment where they do not have access to teachers for proper teaching and learning. Daniel (2020) affirmed that COVID-19 makes students worldwide change their learning patterns from school to home environments. Extant literature has identified various challenges associated with remote learning, which include poor preparation, failure to concentrate, no further explanation, and a lack of guidance (Ajani et al., 2021). Imran et al. (2020) argued that for students to stay away from school for a very long time will significantly negatively affect their ways of life, including their social, emotional, and physical well-being. They indicated that COVID-19 affected the quality of education and the necessary guidance students received, negatively impacting their educational development (Dube, 2020; Reimers, 2022).

Pedrero and Debbane (2017) reveal that all over the world, adolescents aged between 12-21 constitute the largest student population. This indicates that age plays a significant role in shaping an adult life because the age bracket is associated with the student's emotional, physical, and social development and everybody in general (Pedrero & Debbane, 2017). Rubia et al. (2020) examined students' performance during the COVID-19 era. Their study is experimental research that makes use of 458. The finding revealed that COVID-19 had positively impacted students' academic performance. Not only that, but it also helped them enhance various learning strategies. In another development,

Realyvásquez-Vargas et al. (2020) investigated the influence of environmental factors on students' academic performance during COVID-19. The finding revealed that the environment influenced students' academic performance, particularly during the COVID-19 pandemic. Alanazi et al. (2020) investigated students' satisfaction with technology usage during COVID-19, and it revealed a significantly weaker relationship between students' academic performance and technology satisfaction in their online courses.

Elhadary et al. (2020) examined the impact of COVID-19 on students' academic performance in Turkey. The findings revealed various factors that caused the poor academic performance of students during COVID-19, which include the availability of ICT resources, time, and a host of others. In addition, the findings also revealed that students and academics are delighted with using technology during COVID-19. Chen et al. (2020) examined the level of students' attitudes towards online teaching, particularly during the pandemic, in various contexts. However, the findings revealed a very high level of satisfaction among students with online teaching. Aucejo (2020) conducted a study on the academic outcomes of students in the USA doing COVID-19, and it was revealed that the pandemic makes many students graduate on time. This claimed 13%, while 11% withdrew from classes. 50% admitted that COVID-19 decreased their study hours and, in some cases, their academic performance. The epidemic exacerbated disparities within systems. As an illustration, it exacerbated disparities between predominantly Black and predominantly White schools in the United States. It intensified existing divisions between urban and rural areas in Ethiopia and South Africa. In addition to academic consequences, the COVID-19 epidemic has had far-reaching social and emotional effects on kids worldwide. These include heightened mental health issues, instances of aggression against children, an increase in obesity rates, a rise in teenage pregnancies, and elevated levels of chronic absenteeism and school dropouts.

There is an increasing body of research and academic viewpoints suggesting that the outbreak has rendered international students especially susceptible (Fischer, 2021; Maree, 2022) and those efforts to control the transmission of the virus have disproportionately affected this demographic. The closure of campuses, transition to online education, limitations on travel, and intermittent national lockdowns have resulted

in international students' isolation and reduced access to assistance in their home countries (Chen et al., 2020). A study conducted in the United States surveyed around 1500 students to investigate the causal influence of the pandemic on students' present and anticipated outcomes. The findings revealed a widespread detrimental impact across various domains. Aucejo et al. (2020) contend that the evidence regarding academic results suggests that COVID-19 has resulted in a significant proportion of students deferring graduation (13%), dropping out of courses (11%), and expressing an intention to switch majors (12%). Furthermore, around 50% of the individuals in our survey indicated a reduction in their study hours and a decline in their academic performance (Aucejo et al., 2020).

In their study, Schartner and Wang (2022) confirmed that the pandemic had a substantial effect on the general well-being of students, as evidenced by a survey done on 343 students in UK universities. 41% of the participants indicated apprehension for their mental well-being, with over half reporting experiencing worry (57%) and disruptions in their usual sleep patterns (51%) (Schartner & Wang, 2022). Within the same poll, a quarter of students expressed intense concern' over the COVID-19 epidemic, while a significant majority (71%) had encountered anxieties concerning their loved ones. 25% of students reported encountering COVID-related discrimination, while 22% reported facing issues with housing or accommodations during the pandemic. In addition, a majority of participants expressed significant concern regarding travel restrictions (60%), securing employment after completing their studies (55%), and their academic achievements (52%). As per the findings of Schartner & Wang (2022), a significant proportion of students expressed apprehension regarding the economic repercussions of the pandemic, both at an individual level (48%) and on a broader scale (47%).

Some similar studies have been carried out to examine the impact of COVID-19 on global education (Dube, 2020; Maree, 2022). In his 2020 assessment on the impact of COVID-19 on education in Ghana, Upoalkapajor confirmed that the pandemic had a substantial effect on education in the country. He emphasised the need for schools to acquire resources to recover from the educational setbacks created by the epidemic. Adeyanju, Ajilore, Ogunlalu, Onatunji, and Mogaji (2020) examined the effects of the coronavirus

pandemic on higher education in Nigeria and emphasised notable local advancements resulting from the pandemic. They also gave university administrators and managers valuable insights for devising an effective education strategy and response plan after COVID-19. Prior studies have predominantly focused on the repercussions of COVID-19 from the viewpoints of teachers, researchers, educational administrators, and government authorities rather than considering the perspective of students (Le Grange, 2021; Ajani et al., 2022). Students at higher education institutions have legitimate reasons to be apprehensive about the repercussions of the epidemic on their future. Understanding the effects of the "new normal" on students' academic performance and mental well-being is crucial in a developing nation such as South Africa (Mncube et al., 2021).

In another study by Noori (2021) in Afghanistan, students at Takhar University expressed a need for more satisfaction with online instruction and learning during the COVID-19 epidemic. According to the study conducted by Wang and Huang (2021), nearly all participants acknowledged that the COVID-19 epidemic had a detrimental impact on their learning. Many students expressed dissatisfaction with their lack of studying in recent years, citing a shortage of resources and the high cost of internet bundles as barriers they could not afford (Noori, 2021). Onyema, Eucharia, Gbenga, Roselyn Daniel, and Kingsley (2020) conducted a study in Nigeria and found that the closure of schools in the country hurts students' desire and participation in learning, ultimately leading to a decline in the quality of education. Additionally, as mentioned earlier, the study uncovered that closing schools has engendered numerous challenges for kids and educators in nations with restricted means.

UNESCO (2020) revealed that about 188 out of 195 countries worldwide closed and, at the same time, restricted their education facilities. The closure of educational institutions impacted 1,576 021 858 students, who make up about 91.3% of all students worldwide (Fong et al., 2020). However, the closure of schools has a negative impact on students' health, economics, and, at the same time, social lives (Mhlanga, 2021).

However, the South African government implemented mitigation plans to reduce this negative effect on education, including online educational paradigms (Owolabi, 2020). Crawford et al. (2020) revealed that countries such as Australia, the UAE, and Germany had online platforms before the advent of the disease. Extant literature revealed the negative consequences of COVID-19 on students' academics and their studies, notably cognitive interruptions and evaluation disruptions, and the impact is worse for students from low-income families (Crawford et al., 2020; Stanistreet et al., 2021). This implies that the pandemic would adversely affect schools in developing countries (Gamede et al., 2022) without access to relevant ICT and the necessary online e-platform (Zhong, 2002). The pandemic brought about school disruption and a lack of school access, especially in low- and medium-income countries such as South Africa.

The primary challenges commonly linked to online education encompass the accessibility of the Internet in remote and rural regions, the speed and expense of Internet connectivity, the availability of electronic devices for Internet access, and the limited interaction between students and instructors (Mohammed, 2020). To enhance online education, it is suggested that electronic devices be provided for internet access, improvements be made to internet speed, cheaper or more accessible internet packages be offered during the pandemic, lecturers receive professional training, and interaction between students and teachers be improved (Mohammed, 2020; Maphalala & Ajani, 2023).

Mohammed's (2020) study reveals that the smartphone was the predominant device employed by students to access online resources, with the laptop being the second most utilised tool, while the personal computer was the least favoured option. Many students may require access to online education due to limited resources or tools stemming from the economic and digital disparity. The unequal access to computers and the Internet hinders the efficiency of online learning. The pandemic has had diverse and unique effects on education in South Africa and other African countries. These effects include reduced schooling levels, an exacerbated disparity in access to learning and academic outcomes, and an increase in the number of students dropping out of school (Blundell et al., 2020).

In South Africa, there are various threats faced by education during this period due to the various peculiar natures of the continent, which include poor health conditions, high rates of poverty, hunger, and overpopulation (Obiako & Adeniran, 2020). In Nigeria before COVID-19, the country was noted as having one in every five of the world's out-of-school children. The number has increased to three in every five children who are out of school. This indicates that many African countries need higher education enrollment levels, particularly among young people (Le Grange, 2021).

2.7. Challenges that students experienced during the COVID-19 pandemic.

COVID-19, according to Schleicher (2020), also resulted in the closure of schools in the Asian Continent. Because the virus originated on the continent, its impact on schooling was more rapid than on other continents. Japan has already announced that most schools will close on February 18, 2020, although the first virus case has yet to be confirmed in other nations worldwide. Other countries, including China, Taiwan, Mongolia, and Korea, have also closed schools (Aristovnik et al., 2020). The epidemic necessitated the adoption of online learning in various Asian nations. Nevertheless, due to digital disparities across the continent, students faced numerous obstacles in obtaining dependable, high-speed, and cost-effective internet access. For instance, Singapore, Brunei, and Malaysia exhibit over 80% internet penetration, while Indonesia, Thailand, and Cambodia demonstrate less than 60% (Scheicher, 2020).

Das (2021) researched Bangladesh and identified several prevalent challenges in online education. These include limited access to digital devices, slow internet speed, high internet costs, insufficient training, frequent power outages, lack of motivation from guardians, a hostile family environment, and financial constraints. As reported by most of the participants, the COVID-19 pandemic has exacerbated poverty among their families, leading to adverse impacts on their means of living, mental and physical well-being, and educational opportunities (Das, 2021). Islam and Das (2021) have established that COVID-19 has exacerbated poverty in low-income communities, impacting various aspects of human existence. COVID-19 cut guardians' income, so they could not provide their children with intelligent gadgets. Furthermore, for many parents, purchasing internet

packages every month was an unacceptable burden, which resulted in many students having difficulty presenting their work on time (Reimers, 2022b).

The internet speed in Bangladesh's Haor areas is relatively low, particularly in the disadvantaged regions (Emon et al., 2020). According to a recent study, Bangladesh had the lowest internet speed (7.8 Mbps) out of the 42 countries analysed, while Canada had the highest internet speed at 63 Mbps (Emon et al., 2020). A significant proportion of the participants in the study (Emo et al., 2020) acknowledged that they did not possess any digital devices for online learning.

In recent times, there has been a shift from traditional classroom settings to online learning, as reported by the higher education company, News in South Africa (2020). Leading universities in Africa are making significant efforts to ensure the continuity of education. Institutions of higher education, including Wits University, the University of Pretoria, and the University of Cape Town, have established systems that enable students to pursue their education through an online platform. This platform allows students to restart their academic assignments, submit study materials, and exchange information with their peers. However, some learning engagement aspects, including physical and mental wellness, were jeopardised (Mahaye, 2020). The closing of schools and higher education significantly influences the emotional and physical health of children, students, parents, and teachers worldwide, especially in poor countries (UNESCO, 2020b). During school closures, male and female students in most rural places may be obliged to provide support.

Crawford et al. (2020) indicate that many students in developing countries need the necessary skills to operate the internet and the ICT equipment and electricity supplies to assist them in online learning. Zhong (2020) states that developing countries and disadvantaged students, particularly those in rural areas with limited access to the internet and technology, may need help engaging in online teaching and learning. Obiako and Adeniran (2020) affirm that the pandemic affected the academic performance of students in Nigeria in three ways, which include students missing during the period of the pre-pandemic, loss of access to vital school-provided services, and discouraging students

who had an interest in education. Burns et al. (2020), in a study conducted in the United Kingdom, reveals that 93% of students had difficulty coping with COVID-19. While 44% admitted they had financial difficulties during COVID-19, 18% noted that they received unfair treatment. Horenczk et al. (2020) researched the challenges facing students during COVID-19 in five countries: Israel, Kosovo, Ukraine, Cyprus, and Germany. However, the study identified the following challenges: financial issues and poor ICT facilities. Copeland et al. (2021) examined the impact of COVID-19 on the students; the findings revealed that the pandemic adversely affected the students' behaviour and emotional abilities, which negatively impacted their mood and wellness behaviour, which can cause loneliness and, at the same time, affect their health status.

2.8. Support that students require to enhance academic performance

To promote academic success, students must have the necessary facilities to promote better academic performance. Kuhfeld et al. (2020) affirm that students' academic performance declined during COVID-19 because of a lack of readiness for the challenges. Abiola (2020) highlighted various strategies to assist students during COVID-19. He clearly states that students, particularly in developing countries such as Nigeria, need various forms of support and, at the same time, guidance. Abiola (2020) reiterates that academics need to mentor students, mainly during the period, so they will not be discouraged from attending school. However, mentoring can be described as the process in which a more experienced person critically provides various career and necessary services, including career guidance, necessary skills and sponsorship, and psychosocial support for learning to increase their hope in educational development. Molley (2021) states that in providing relief materials for academic resources due to the pandemic, there should be severe interaction between academics and students to stay connected and to build community. This can be done through various platforms, including the Internet and social media platforms for teaching.

Dar and Lone (2021) state that during COVID-19, many high schools in India were shut down, and the schools employed digital platforms to teach their students. Ng and Or (2020) state that Bangladesh should develop adequate plans and strategies. The government should give students financial assistance and college loans. It is strongly

advised that the required actions be taken to reduce load shedding, increase internet speed, provide free or low-cost data packages, train teachers, and provide suitable guardian advice. Countries should put educational technologies to use on a large scale and build ICT infrastructure (Chick et al., 2020). Furthermore, countries allow students to access educational websites and applications for free since the resources are zero-rated; in other words, data charges are not incurred when students visit educational websites and applications.

Access to online learning content from non-profit publications and private organisations is facilitated through free, open educational resources (Wajdi et al., 2020). Additionally, improving mobile phone accessibility to educational resources is essential. Parents should actively monitor their children's mobile learning practices to mitigate potential negative impacts. Furthermore, utilising radio and television can effectively teach students who do not have access to other technologies at home. It is also crucial to install ICT infrastructure and educational technologies to reach students in remote and difficult-to-reach areas (Tiruneh, 2020). Ajani and Khumalo (2023) report that using virtual classes helps students progress and achieve their educational goals. Consequently, virtual classes enable students to identify effective learning strategies while recognising those that may not work for them.

2.9. CHAPTER SUMMARY

This chapter has focused on the transformation theory, developed by Jack Mezirow, which emphasises profound cognitive shifts and personal growth through critical reflection on experiences. It emphasises transformative change in beliefs and perspectives, often catalysed by disorienting dilemmas. In the context of a historically disadvantaged University in KwaZulu-Natal, the impact of COVID-19 on students' academic performance is significant. The pandemic disrupted traditional learning, creating disorienting academic and student dilemmas. Students frequently faced problems with limited access to technology, socio-economic disparities, difficulties with remote learning, and mental health issues. The transformation theory can help us understand this impact. The pandemic was disorienting, prompting students to reflect on their learning experiences and adapt critically. Students had to navigate remote learning, adjust study habits, and

develop coping strategies. The theory's emphasis on transformative change aligns with students' need to reevaluate their educational perspectives and adapt to new circumstances. The pandemic prompted both academics and students to undergo transformative learning. Faculty had to adapt teaching methods, and students engaged in reflective learning to overcome challenges. The theory's critical self-reflection, adaptation, and personal growth principles resonate with students' experiences during the pandemic.

Ultimately, the transformation theory sheds light on how the pandemic led to cognitive shifts and personal growth among students at a historically disadvantaged University in KwaZulu-Natal. The disorienting dilemmas caused by the pandemic acted as catalysts for transformative change, fostering adaptability, resilience, and a deeper understanding of the value of education. The next chapter will focus on the research methodology section of this study.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

In the previous chapter, the researcher explored various concepts on the impact of COVID-19 on students' academic performance at a historically disadvantaged University in Kwazulu-Natal, using various extant studies from the global and South African perspectives. The previous chapter also provided arguments on transformative learning theory as a theoretical lens underpinning the study. Hence, this chapter provides information on the research methodology for this study. The study provides in-depth answers to the following research questions:

• What was the effect of COVID-19 on students' academic performance at a historically disadvantaged University in KwaZulu-Natal?

• What challenges did students face during COVID-19 at a historically disadvantaged University in KwaZulu-Natal?

• Which support did students require to enhance academic performance during the COVID-19 pandemic?

This chapter provides a comprehensive overview of the qualitative research process, detailing the steps undertaken during data collection. It explains and describes the research methodology and procedures, elucidating the research design, paradigm, target population, and sampling techniques. Additionally, it outlines the research tools, data collection methods, data analysis techniques, and ethical considerations. Finally, the chapter delves into the concept of trustworthiness, covering factors like credibility, transferability, dependability, and confirmability, elucidating how these criteria were integrated into and applied within the study.

3.2 Research Design

The research design encompassed the systematic approach employed for conducting this study. It involved identifying research problems, formulating research questions, data

collection, analysis, interpretation, and report writing (Creswell, 2014). It served as the guiding roadmap diligently followed throughout the study to ensure its validity, criticality, reliability, and cost-effectiveness in seeking answers to research inquiries (Kumar, 2018). This procedural and operational framework delineated the various approaches and methods employed throughout the research process. In this study, each of these critical components was meticulously addressed.

The chosen research design represented the logical sequence that established the connection between empirical data, the initial research questions, and the study's conclusions (Yin, 2003). It served as a comprehensive blueprint for the entire research process. Consequently, phenomenology was identified as the most suitable research method for this study. Rooted in philosophy and psychology, phenomenology is a survey methodology where the researcher seeks to elucidate individuals' perspectives on a phenomenon as defined by the participants (Higgs & Smith, 2006). As Teherani, Martimianakis, Stenfors-Hayes, Wadhwa, and Varpio (2015) assert, phenomenology can be simplistically defined as a research approach aimed at describing the essence of a phenomenon by exploring it from the viewpoint of those who have experienced it. Therefore, the adoption of phenomenology was a deliberate choice, driven by the desire to scrutinise the participants' viewpoints, thoughts, and emotions in this study.

The qualitative research design was employed to investigate the impact of COVID-19 on students' academic performance at a historically disadvantaged university in KwaZulu-Natal. This approach allowed for an in-depth exploration of the experiences and perceptions of students within this unique context, providing nuanced insights into the research questions. Qualitative research examines and interprets personal and social experiences, emphasising how meanings are discursively produced and shaped (Smith, 2015). It involves understanding how people construct meaning and make sense of their world and experiences. The current study followed a qualitative case study approach, collecting data through personal experiences, introspection, stories, interviews, observations, interactions, and visual texts significant to the participants' lives (Bertram & Christiansen, 2014). Specifically, interpretive phenomenological analysis was employed to comprehend phenomena in their context (Creswell & Poth, 2017).

The choice of a case study design was appropriate as the research focused on a specific historically disadvantaged university, and it allowed for a detailed investigation of this specific subject within its environmental context (Bertram & Christiansen, 2014). The study aimed to investigate the impact of the COVID-19 pandemic on students' academic performance at this university, addressing the relationship between the phenomenon and its environment.

3.3 Paradigm of the study

In scientific inquiry, a paradigm is a collective framework comprising shared beliefs, principles, and techniques embraced by scientific community members. It serves as a guiding compass, delineating the problems and issues scientists will engage with (Masote, 2016). Guba and Lincoln (2014) elaborate that a paradigm constitutes a foundational set of beliefs encompassing fundamental principles, shaping a worldview that not only defines the nature of the world but also situates the individual within it. It further delineates the potential relationships between the individual and the world, including its constituent parts. In the context of this study, these guiding beliefs and strategies, particularly within educational settings, are harnessed to address the inquiry into moral decline.

The present study is firmly rooted in the interpretivist paradigm, aligning with the qualitative approach. The pursuit of a comprehensive understanding of the subject matter drives this choice of the interpretive approach. It entails examining and interviewing individuals within their natural contexts, delving into their day-to-day experiences (Guba & Lincoln, 2014). By adopting this paradigm, the research aims to capture the multifaceted dimensions of the phenomenon under investigation, allowing for a nuanced exploration of the intricate web of factors contributing to moral decline within the school environment. According to Cohen et al. (2007, p. 21), interpretive methodology "requires that social phenomena be understood through the eyes of the participants rather than the researcher". The goal of interpretive methodology is to understand social phenomena in their context. In interpretivism, data is primarily verbal instead of statistical and is usually audio/video recorded to, according to Cohen et al. (2007,p. 10), "preserve the events in a fairly authentic manner for subsequent data analysis."

Reeves and Hedberg (2003) explicitly assert that the interpretive paradigm underscores the importance of contextualising the analysis process. Central to this paradigm is the objective of comprehending the world as perceived through participants' subjective experiences. Consequently, it employs methodologies rooted in elucidating meaning rather than quantitative measurements, such as interviews or participant evaluations, which hinge upon establishing a relational rapport between the researcher and the participants. Within the interpretive paradigm, the role of the researcher is delineated as that of one who seeks to "comprehend, elucidate, and unveil social reality from the vantage points of diverse participants" (Cohen et al., 2007, p. 9).

3.4. Target population

As defined by Simon and Goes (2012), a population constitutes the entire assemblage of individuals or entities sharing one or more attributes from which data can be derived. This study's target population encompassed students and lecturers within the HDU. Following recommendations by Creswell (2014) and Kumar (2014), various techniques and procedures were thoughtfully deliberated upon before finalising the sample collection for this study. This section delves into the sampling methods, sample frame, and sample size employed in the qualitative analysis.

De Vos, Strydom, Fouche, and Delport (2012) elucidate that a sample represents a constrained subset of the entire population. Consequently, it is imperative to consider the scale and representativeness when contemplating sampling. For instance, the sample size should be of sufficient magnitude to permit reasonably precise estimations of the characteristics of the phenomena in question. Kumar (2014) defines sampling as the process of selecting a subset (sample) from a larger grouping (the sampled population) as the foundation for estimating or predicting the prevalence of undisclosed information, conditions, or outcomes within the broader group. In essence, the sample constitutes a subgroup within the broader group (population) of interest to the researcher (Kumar, 2014). Kumar further posits that in qualitative research, the objective is not merely to select a random or unbiased sample but to choose one that furnishes the researcher with as much comprehensive, dependable, and exhaustive information as possible, aligning with the researcher's specific investigative needs.

The targeted population of this study were fourth-year undergraduate students and Lecturers at the University Zululand of Zululand's Faculty of Education because they had experienced teaching and learning before and after COVID-19; therefore, they were the suitable study population. Sample exclusion was the first-year, second-year, and third-year students because they needed prior and after-learning experience with COVID-19.

3.4.1 Sampling technique

This study utilised the purposive sampling technique due to its ability to gather qualitative remarks, resulting in more accurate research findings and enhanced insights. Etikan, Musa, and Alkassim (2016) state that in purposive sampling, the researcher actively selects individuals who possess the desired knowledge or expertise and are prepared to supply the necessary information. Purposive sampling is a frequently used method for selecting participants in research studies. It involves grouping individuals based on specific criteria relevant to the study issue (Cohen et al., 2002; Etikan et al., 2016). Ten (10) fourth-year students and five (5) professors were deliberately chosen due to their prior experience in teaching and learning both before and after the COVID-19 pandemic.

3.5 DESCRIPTION OF DATA COLLECTION TOOLS AND PROCEDURES

According to Kumar (2014), several critical considerations should precede the initiation of the data collection process from potential participants:

- **Motivation to Share Information:** Participants must be willing to share the requisite information with the researcher. The researcher must make a concerted effort to motivate participants by clearly elucidating the study's objectives and providing a comprehensible rationale in plain language.
- **Comprehension of Inquiry:** Participants must clearly understand each inquiry presented to them. Ambiguity in the questions may lead to incorrect, irrelevant, or meaningless responses.
- **Possession of Required Information:** Participants should have access to the information requested, primarily when the researcher seeks accurate or technical details. If participants lack access to the necessary information, their ability to provide it becomes constrained.

The study employed a semi-structured interview methodology. Bertram and Christiansen (2014) propose that the semi-structured interview is a frequently used method in qualitative research. This strategy involves the interviewer openly asking about the fundamental aspects of the phenomenon under investigation. Each participant underwent individual interviews. Case study research methodologies were employed to conduct open-ended interviews and document analysis. An *interview* is a dialogue conducted between the researcher and the participant. Nevertheless, it diverges from ordinary discourse in that the researcher assumes the role of agenda-setter and questioner (Bertram & Christiansen, 2014). The interviewer created an interview guide with questions derived from the study inquiries.

3.5.1 Semi-Structured Interview

Interview represents a valuable method for collecting qualitative data, involving individuals engaged in an informal yet structured discussion centred around a specific topic or set of issues (Wilkinson, 2004). Extensive literature demonstrates that researchers, particularly those in the social sciences and qualitative research domains, frequently employ interviews to gather participant insights. This approach offers participants a less intimidating environment, fostering open and candid discussions of perceptions, ideas, opinions, and thoughts (Krueger & Casey, 2000). Consequently, the primary objective of semi-structured interviews is to investigate individuals' perspectives, opinions, and understandings concerning a particular circumstance or event (Kumar, 2014).

In the context of semi-structured interviews, the researcher delineates broad areas of discussion topics in advance. Krueger and Casey (2000) emphasise the advantages of employing interviews, notably the efficiency and capacity to facilitate data collection from appropriate participants, potentially augmenting the overall information in qualitative research endeavours. Consequently, the researcher deliberately opted for semi-structured interviews due to the advantageous attributes and alignment with the study's objectives.

A structured interview schedule was utilised to direct the interview procedure. Inquiries about the structure of the subject under investigation were posed, providing comprehensive and specific information. Open-ended questions were employed in a semi-structured interview to get detailed information from participants. During the interview, the researcher adhered strictly to the interview agenda. The interviews were meticulously recorded in audio format and transcribed with great accuracy. The duration of the interviews ranged from 30 to 60 minutes.

Before commencing the interview process, consent forms (refer to Appendix E) were administered to the participants, who were required to complete and sign them. Subsequently, the interviews were conducted on agreed-upon dates, with the researcher using smartphones to voice-record the proceedings. Additionally, permission was sought for potential follow-up inquiries and clarifications in cases of ambiguous information during the transcription phase. A predetermined time frame of 60 to 90 minutes was allocated to facilitate the interviews, contingent on the participant's willingness to share information. Confidentiality was emphasised, assuring participants that all discussed information would remain confidential.

Furthermore, participants were explicitly informed of the voluntary nature of their participation, emphasising that they should not feel compelled to partake in the exercise. For the semi-structured interviews, each participant was provided with a set of questions (see Appendix A) to guide the interviews. To foster an environment conducive to open dialogue, the researcher addressed participants using pseudonyms like "participant 1," preserving their anonymity and confidentiality. With participants' consent, the interviews were recorded using a smartphone. On average, each group interview session lasted approximately one hour per participant, and all interviews were transcribed verbatim.

3.5.2 Pilot testing

A pilot study was conducted as an integral preparatory step to assess the reliability of the interview instrument before initiating the data collection phase. According to Kvale (2007), pilot research is vital in the comprehensive planning of interviews. This preliminary exercise enabled the researcher to identify potential inconsistencies, shortcomings, or

weaknesses within the interview design. It also facilitated necessary adjustments to the instrument before the focus group interviews. Kvale recommends pilot projects involve participants with similar interests and perspectives to those who will eventually participate in the study. The pilot study involved individuals from the sciences discipline, consisting of five students and a lecturer from a different faculty at the selected university in KwaZulu-Natal. The semi-structured interview schedule was employed to engage with the participants during the pilot study. The questions were categorised based on the study's objectives, with relevant sub-questions delineated under each objective. Probing questions were incorporated to encourage participants to elaborate on their responses, and follow-up questions or prompts were used to ensure comprehensive responses. The insights garnered from the pilot exercise were instrumental in refining the instrument, particularly in eliminating ambiguities.

3.6 DATA ANALYSIS AND PRESENTATION

The qualitative data analysis process involved carefully examining verbatim transcripts from semi-structured focus interviews. These data were systematically coded and categorised based on the emergent themes identified in the study. The data were transcribed into segments and subsequently identified and categorised before patterns and thematic elements were established. The transcription process was conducted meticulously to preserve the meaning conveyed in the texts, emphasising the use of concepts and words preferred by the participants during the coding process. This approach was employed to maintain the fidelity of participant narratives, with direct quotes serving as confirmatory elements to enhance the overall reliability of the qualitative research. To maintain anonymity, verbatim sentences were coded rather than utilising the actual names of the participants, and each participant was assigned a unique code, ranging from P1 to P15.

Upon the completion of data collection, the researcher employed thematic analysis to scrutinise and compare the explanations and descriptions of the phenomena under investigation. Thematic analysis entails an in-depth exploration of transcripts, identifying salient themes and their systematic organisation based on their distinctive characteristics. The researcher used multiple data readings to identify centrally conspicuous themes,

which were then meticulously coded and recoded into refined categories. These categories formed the basis for generating descriptive narratives elucidating the investigated phenomena.

In summary, the data analysis process commenced with transcription and proceeded through a series of methodical steps, as follows: first, familiarisation with the data through repeated readings to identify primary emerging themes; second, the description of the data by examining them comprehensively to provide detailed contextual information regarding the setting, participants, and activities; third, the classification of data by categorising and coding individual data segments, thereby physically grouping them into the identified themes; and finally, the interpretation and synthesis of the organised data to derive overarching conclusions. This systematic approach ensured a comprehensive and rigorous analysis of the qualitative data, facilitating a nuanced understanding of the research phenomena, as recommended by Gay and Airasian (2000, cited in White, 2005:186).

Thematic Analysis is a method for methodically detecting, organising and providing insight into patterns of meaning (themes) across a dataset. Thematic Analysis allows the researcher to see and make sense of common or shared meanings and experiences by focusing on meaning across a dataset. Thematic Analysis does not focus on identifying unique meanings and experiences within a single data item. This strategy is a manner of recognising and making sense of what is similar to how a topic is discussed or written about.

Thematic analysis is a powerful tool that, combined with theory, may successfully elucidate and predict diverse research outcomes within a structured framework. Clarke and Braun (2014) enhance examining meanings and experiences within a context, complementing social constructivism. The researcher used theme analysis to examine the data due to its versatility.

Thematic analysis, as described by Braun and Clarke (2019), is a systematic approach used in qualitative research to uncover, organise, and provide an understanding of patterns of meaning (themes) within a dataset. The researcher could discern and

comprehend prevalent or mutually understood meanings and experiences by prioritising the examination of significance throughout a dataset. This approach entails recognising the shared characteristics in how a subject is spoken or written about and comprehending the underlying patterns (Braun & Clarke, 2019). The study adhered to the six stages of theme analysis proposed by Braun and Clarke (2019):

Phase 1: Acquainting oneself with the data. During this phase, the researcher thoroughly engaged with the data by extensively reviewing textual information and carefully listening to audio recordings.

Phase 2: Generating preliminary codes. Phase 2 initiates the methodical examination of the data, including coding techniques. During this phase, the researcher generated codes based on the data.

Phase 3: Theme exploration. During this phase, the analysis begins to solidify as the researcher transitions from coding to identifying overarching themes. The researcher derived themes from the codes generated.

Phase 4: Evaluating prospective themes. This step entails a recursive procedure in which the emerging themes are examined in connection with the coded data and the complete dataset. During this phase, the researcher examined the connections between the coded data and the complete dataset.

Phase 5 is clearly defining and assigning names to various themes. When establishing themes, the researcher should clearly articulate each topic's distinct and unique characteristics by succinctly summarising each theme's essence in a few phrases.

Phase 6: Report generation. The researcher transitioned from the casual practice of writing notes and memoranda to the more formal analysis and report writing procedures, which was an integral part of the continuing process from the outset.

3.6.1 Credibility

Credibility, within the context of this study, pertains to the reliability and trustworthiness of the research findings. It involves assessing whether the results obtained from a

qualitative research inquiry are dependable and believable from the standpoint of the research participants (Trochim & Donnelly, 2007). To ascertain credibility, the researcher focused on accurately identifying and describing the participants involved in the research project to ensure that their responses were precise and contextually appropriate.

In the quest for credibility, the researcher delved into the perceptions, experiences, feelings, and beliefs of participants drawn from various focus groups in different schools, all of whom were queried about the significance of integrating values education into the FET phase curriculum in the wake of the COVID-19 pandemic. A consistent pattern emerged from their responses, indicating shared understandings and experiences related to the impacts of the pandemic on teaching and learning. This alignment among participant perspectives served to affirm the credibility of the study. Kumar (2014) underscores the importance of gauging credibility by seeking concordance with research participants when presenting findings to them for validation. Polit and Beck (2014) further emphasise that credibility, signifying confidence in the study's truthfulness and findings, is a paramount criterion for evaluating the research's value and outcomes.

Additionally, credibility hinges on the quality and richness of the collected data rather than sheer quantity. To bolster credibility, the researcher enlisted the expertise of a supervisor and other subject-matter experts to scrutinise the data analysis vis-à-vis the data collection process, aiming to identify and mitigate potential biases, emotional influences, and subjective perspectives. Member-checking, a practice involving examining data, analytic categories, interpretations, and conclusions by members of the original data source groups, was also employed to maintain credibility. In this vein, the researcher shared transcripts and data analyses with participants, seeking their input to ensure the accuracy of case descriptions and research findings.

3.6.2. Transferability

Transferability pertains to the potential for extrapolation, wherein the argument is made that the effects observed can be generalised or extended to other groups or settings. According to Lincoln and Guba (1985), the concept of transferability quantifies the extent to which the findings of one study can be applied to different contexts. In qualitative

research, a significant concern often revolves around demonstrating that the study's findings can apply to a broader population. Naturalistic inquiries, however, are typically deemed less conducive to generalizability, given the uniqueness and contextualisation of each situation. To enhance the transferability of this study to analogous contexts, the researcher furnished participants with comprehensive background information, methodologies, and considerations that allow for the potential translation of findings to their respective circumstances.

3.6.3 confirmability

Confirmability of results refers to the accuracy with which data represent the information conveyed by participants, emphasising ensuring that interpretations are not influenced or fabricated by the inquirer or researcher (Polit & Beck, 2012). Similarly, Kumar (2014) posits that confirmability pertains to the extent to which results can be verified or supported by parties beyond the researcher, minimising the role of researcher bias. In this analysis, the researcher maintained neutrality to exclude personal biases from the research processes and outcomes (Lincoln & Guba, 1985). Consequently, the study's findings emanate from the informants' experiences, perceptions, and ideas actively involved in the data collection process rather than reflecting the researcher's perspectives.

Moreover, this analysis incorporated data triangulation to mitigate researcher bias. A descriptive approach was also employed to facilitate reader comprehension of data collection and analysis methods. Lincoln and Guba (1985:35) underscore the importance of "an audit trail, which allows any researcher to meticulously trace the research process step-by-step, including decisions and defined procedures," as essential to the confirmability process. To this end, the researcher has maintained a concise and coherent record of the investigative process, meticulously outlining each step from the initial outline through system development to the reporting of findings. This transparency enables other researchers to monitor the process effectively (Noble & Smith, 2015).

3.6.4 Dependability

Dependability in qualitative data alludes to the consistency of data over time and varying conditions, akin to reliability in quantitative analysis. The researcher ensured a rational, traceable, well-documented research process, emphasising consistency to enhance dependability. The greater the researcher's consistency throughout the research journey, the greater the accuracy of the findings. The researcher also implemented a reliability audit involving an external investigator who critically assessed the researcher's activities to gauge the extent to which procedures for achieving reliability and transferability criteria were adhered to.

3.7 Ethical considerations

Participants took part in the study voluntarily, and no incentives were offered. The University of Zulu Land Research Office provided ethical clearance (**Appendix to be attached)**, and authorisation to perform the research was received from all gatekeepers, including the Registrar's Office **(Appendix to be attached)**

Creswell (2009:89) underscores the necessity for participants to complete an informed consent form as a prerequisite for their involvement in the study. Consequently, the researcher diligently addressed and implemented this procedure. All participants signed informed consent forms (**Appendix, to be attached).** Participants' rights, beliefs, and cultures were respected in that all questions were sensitive to their culture, and all participants were informed that they had the right to withdraw from the study at any stage if they felt uncomfortable. The anonymity of the participants was respected, and their real identities were not used. There were no traumatic issues. The data remained private because it was not shared with anybody other than the supervisor, and pseudonyms were used for the university and participants (Creswell & Poth, 2017). Apart from the researcher's supervisor, no one had access to or discussed the data (Tracy, 2019).

3.8. Limitations

First and foremost, it is imperative to acknowledge the constraints of this study. The research was confined to a single Historically Disadvantaged University situated in the Northern Zululand region of KwaZulu-Natal, one of the nine provinces within South Africa.

Additionally, the study exclusively focused on one of the five faculties within the university. The participant pool was restricted to Fourth-year students and lecturers within the Faculty of Education. Consequently, a purposive selection method was employed, resulting in ten students and five lecturers being included in the study.

3.9 CHAPTER SUMMARY

This chapter is an extensive exposition of the methodological procedures meticulously adhered to by the researcher in the execution of this study. It comprehensively discusses the research design and methodology, providing explicit insights into how the research process was meticulously applied across various facets of the study. The chapter expounds upon the sampling strategies employed to effectively categorise participants, offering a thorough exploration of the instruments employed in data collection with detailed descriptions and rationales. It also provides a comprehensive discussion of the fieldwork program, emphasising the principles guiding data collection. A succinct overview of the data analysis process is presented, followed by a robust examination of trustworthiness, encompassing critical dimensions such as credibility, dependability, confirmability, and transferability, all adeptly linked to the current study. Furthermore, ethical considerations intrinsic to the research are delineated, accompanied by a clear exposition of the requisite procedures for adherence.

CHAPTER 4

PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

In Chapter 3, the researcher detailed the research methodology and design employed for this study. In this chapter, the researcher delved into the results and analysis of the impact of COVID-19 on students' academic performance at a historically disadvantaged University in Kwazulu-Natal. The study involved interviews with ten (10) students and five (5) lecturers from the Faculty of Education. Thematic content analysis was used to examine the data, and themes were constructed to interpretively articulate the study's conclusions (Braun & Clarke, 2006). Data was acquired via semi-structured interviews to allow the participants to reflect further on their lived experiences (Creswell, 2014).

To maintain anonymity, the researcher assigned codes to the ten students denoted as S1, S2, S3, and S4 through S10. The lecturers were similarly coded as L1, L2, L3, L4, and L5. The study's findings and discussions are structured and presented using a thematic analysis approach (Kumar, 2019). The primary goal of this research project was to investigate and better understand the Impact of COVID-19 on students' academic performance at a historically disadvantaged University in Kwazulu-Natal.

In this study, data analysis and detailed findings are presented in two mainly semi-structured interviews, which addressed the objectives and themes of the study, as shown in the table below.

Table 4.1: Themes aligned to the research question.

Research Objectives	**Themes**
1. To explore the impact of the COVID-19 pandemic on students' academic performance at a historically disadvantaged University in KwaZulu-Natal.	a. The Covid-19 and the global world. b. Impact of covid-19 on a historically disadvantaged university in KZN.

2. To ascertain the challenges that students experienced during the COVID-19 pandemic at a historically disadvantaged University in KwaZulu-Natal.	c. Challenges of teaching and learning during the Covid-19 pandemic. d. Transformation processes and outcomes
3. To determine the kind of support that students require to enhance academic performance during the COVID-19 pandemic at a historically disadvantaged University in KwaZulu-Natal.	e. Support to enhance teaching and learning. f. Strategies to support teaching and learning in the future occurrence of a pandemic.

4.2. MAIN FINDINGS FROM THE INTERVIEWS

Findings from the semi-structured interviews are presented in this section. The semi-structured interview guide was used to collect data on the research objectives, as indicated in **Table 4.1** above.

The data collected from the 15 participants underwent a rigorous analysis process to identify relevant themes that address the research questions systematically. Thematic coding, a well-established qualitative research technique, was used to systematically analyze the qualitative data (Cohen et al., 2010). Thematic coding involves systematically examining transcripts to compare responses and derive emerging codes from the gathered data without imposing pre-existing theories or preferences. This approach is well-suited for generating detailed and comprehensive data descriptions, given the qualitative nature of the data (Braun & Clarke, 2006).

The researcher transcribed all audio-recorded interviews, maintaining the participants' exact words. Subsequently, the researcher coded to identify significant and similar data organized into thematic categories. Verbatim interview excerpts were included to provide

concrete evidence of participants' responses. The responses were thoughtfully categorized into ten key themes, aligning with the interpretive paradigm and aimed at offering authentic and systematic insights. These emerging themes were firmly rooted in the research objectives, providing a coherent framework for analysis. The identified themes are as follows:

- Covid-19 and the global world.
- Impact of COVID-19 on a historically disadvantaged university in KZN.
- Challenges of teaching and learning during the Covid-19 pandemic.
- Support to enhance teaching and learning
- Strategies to support teaching and learning in the future occurrence of a pandemic.

4.3 DISCUSSION OF THE FINDINGS

The subsequent section delves into a comprehensive discussion of the five prominent themes extracted from the semi-structured interviews. Each theme is initially presented, followed by a detailed examination of the findings within that thematic framework. These findings are then thoughtfully interpreted, drawing connections between them, the overarching study, and existing literature in the field. Verbatim quotations from the data are thoughtfully extracted and attributed with pseudonyms (Participant 1-15), denoting both students (S1-S10) and lecturers (L1-L5), to safeguard the anonymity of the participants.

4.3.1. COVID-19 AND THE GLOBAL WORLD

The participants' perceptions of what they understood by the pandemic are critical to its impact on academic performance in historically disadvantaged universities. The participants' views on their understanding of COVID-19 as it affected or influenced students' academic performance highlighted the history and origin of the COVID-19 pandemic and how it affected the world, including South Africa, and steps taken by global organisations like the World Health Organisation (WHO) to combat the spread of the pandemic. The participants expressed their understanding of COVID-19 in different ways:

"*Covid-19 was first identified in December 2019 in Wuhan, Hubei Province, China. It was first identified as pneumonia of unknown origin, but because of its rapid nature, the COVID-19 virus spread across China and the entire country"* (S2).

"*Well, it started like a play until we cannot go to school or engage in teaching and learning activities for several months*" (S6).

"*The World Health Organization (WHO) officially declared it a pandemic in March 2020"* (L1).

"*Globally, governments worldwide started different steps and measures to combat the spread of the virus*" (L4).

While some of the participants described further the covid-19 in the global world:

"*As reported, the pandemic started in China and spread to many countries. And we went on lockdowns, with schools and other activities closed*" (S9).

"*News across the globe showed that many countries like South Africa were grounded. Our university is a rural university, and teaching and learning was stopped*" (L3).

Findings revealed that the emergence of COVID-19 brought about the closure of educational institutions across the globe. The South African government also implemented strong measures to help contain the pandemic and limit its spread across the country (Dube, 2020). Some of the measures implemented by the South African government at the time included forced quarantines and isolation of infected people, social distancing, some travel restrictions, bans on public gatherings, school and university closures, self-isolation, requiring people to work from home, curfews and in extreme cases it enforced lockdowns. (Mahaye, 2020; Koen & Roberson, 2021).

Across the world, in many countries such as the United States of America, China, Europe and other African countries, governments imposed lockdowns and curfews just as precautionary measures against the rapid spread of the virus (Aristovnik et al., 2020; Le Grange 2021; Ajani & Khumalo, 2023). Of course, some of these measures negatively impacted education around the world at the time, affecting the global student population

of over 1.7 billion people. Educational institutions worldwide were forced to close down temporarily; all classroom gatherings and campus activities were grounded or postponed to curtail the impact and spread of the COVID-19 pandemic (Arndt et al., 2020; Black et al., 2020). This research answers the critical question of how the pandemic affected and influenced students' learning. Thus, COVID-19 led to the sudden transformation of teaching and learning experiences in a disadvantaged university in Kwazulu-Natal (Mahlaba, 2020; Maphalala & Ajani, 2023).

The Covid-19 pandemic shook the foundation of the world's educational system (Mhlanga & Moloi, 2020). According to Mezirow (1997), a disorienting predicament, such as the pandemic, created alterations that led to cognitive disparities and severe educational changes. The poor communities are even more affected in such cases as they lack most facilities to continue learning online. Of course, students in developing countries worldwide bear a large part of the burden as they have difficulties accessing needed resources due to restricted facilities (Maphalala & Ajani, 2023).

Covid-19 pandemic disrupted educational systems and activities worldwide (Ardington et al., 2023). Disadvantaged universities, particularly in KwaZulu-Natal, South Africa, have encountered unique challenges as they grapple with the effect of the pandemic on their academic institutions as well as the performance of their students (Mkhize, 2022; Ajani & Khumalo, 2023). The sudden pandemic outbreak forced historically disadvantaged universities to transition rapidly to remote learning (Aristovnik et al., 2020). This sudden and abrupt shift created many dilemmas for academics and students (Dube, 2020; Chiwandire, 2022; Moonsamy et al., 2022).

4.3.2. IMPACTS OF THE COVID-19 ON A HISTORICALLY DISADVANTAGED UNIVERSITY IN KZN

The findings revealed the different views about the influence of the COVID-19 pandemic and the challenges it had on academic activities such as teaching and learning from semi-structured interviews with the teachers. The various participants outlined various ways COVID-19 affected learning activities. Participant S1, a student, explained that COVID-19 negatively influenced his learning. He could not attend classes because he could not

access WI-FI at home. According to him, the school chased them off campus. Thus, there was no access to WI-FI at home, so he needed help to catch up with his studies. Other participants also highlighted network problems at home that made regularly attending classes difficult. This S1 had to say:

"*The school chased us out and said we must study at home, so it had a bad influence on me as I could not catch up with my studies and the lecturers because I had network issues at home. I could not even attend classes, so it badly influenced my learning. We only attended classes for two weeks as first-year students and were chased away, so I was not used to using my laptop, so it was difficult to study*" (S1).

During the interview, he complained that he often had to combine studies with his home chores, which was a big distraction at home.

Participant L1, a lecturer, explained the influence Covid-19 had on his students' learning. His experience was quite similar to that of the first student interviewed. He mentioned that COVID-19 negatively influenced his students' learning mainly because the university under study is rural. They were used to contact learning where the students gathered in their classrooms. So, when the pandemic started, everything switched to online learning, which became extremely difficult. Most of the students needed the gadgets that were needed to facilitate online learning. This is what he had to say:

"*When Covid-19 started, everything started to change to online learning. Everything was difficult for us as most students here come from rural areas. They did not have the gadget that was needed to facilitate online learning. So, in the beginning, we struggled to get students to access the guide and everything they needed to study*" (L1).

Similarly, participants S2 and L2 had similar experiences with the previous interviewees S1 and L1. Participant S2 said COVID-19 negatively impacted his learning because he needed to suddenly change how he was used to learning. He had to switch from contact learning to electronic learning. This is what he had to say:

"*COVID-19 influenced my learning in a bad way because it was not easy to change the way I was used to contact learning, but now we have to change to electronic learning, which I was not used to*" (S2).

Participant L2 complained that COVID-19 negatively influenced his students' learning as well. Students needed help to do their assignments. He also mentioned that the students were living with their families, which was challenging for them. This is what he had to say:

"*Some of the students, I will not mention their names, it happened the one is living in deep rural areas, and there was an accident we were told she tried to commit suicide because of, she mentioned there is poor network, and she has no data with no computer*" (L2).

Another Lecturer, L4, also concurred that teaching and learning at the university were significantly impacted, as lecturers, as well as students, had to struggle with online teaching and learning as the only alternative approach to continue the academic calendar:

"*The emergence of the pandemic was sudden and not prepared for. Teaching and learning at our university have been significantly face-to-face. However, with the pandemic, online learning became a new 'normal' that students and lecturers needed to be used to. So many factors influence online learning, such as lack of adequate computer knowledge, load-shedding, poor or lack of network service for internet connection, unconducive environment, lack of personal computers and many more. Many students could not actively participate in learning activities, unlike city universities where students and lecturers had been used to hybrid teaching and learning"* (L4).

The third and fourth participants, S3 and S4, explained how Covid-19 influenced their learning. S3, a student explained that it affected him negatively because he could not meet his fellow students to collaborate and share ideas on their academic work. He also said he did not have a computer at home and only used his cellphone, and the internet was also prolonged.

"*COVID-19 influenced my learning because I was unable to meet other students so that we could share ideas and help each other with academic work*" (S3).

"*With Covid-19, we struggled to do normal things. We do not like face-to-face classes that allow us to interact with peers and lecturers. Some students were frustrated and had to exempt themselves from online"* (S4).

Participant L3, a lecturer, explained that the pandemic affected how the students were learning, especially the first-year students, as they were still getting exposed to how assignments were written in the university and were still getting acquainted with how things work. He also explained that learning from home was difficult for his students as they needed help to acquire the needed devices and gadgets. This is what he had to say:

"*They were still learning how everything works here in varsity, and then suddenly, they had to stay and learn from home. It was a hell of a challenge for all of us, as students and lecturers, and also, considering that some of us as lecturers are old, this new knowledge thing is not our thing. It is something that we do not trust. So, we have enormous challenges concerning using these gadgets because some students cannot inquire about them*" (L3).

Participant S4 stated that the pandemic affected him negatively because his learning was unproductive. All he was doing was copy and paste with Google. Also, he had internet access issues and poor WI-FI connectivity.

"*COVID-19 affected my learning negatively as the education by that time was not productive because all we were doing was copying and pasting in social media with Google. We had internet issues, which was bad as we also had load shedding*" (S4).

Participants S5, S6 and S7 had similar negative experiences during the pandemic. S5 expressed that he was unable to access the laboratory, which hindered his ability to engage in practical theory. He also stated that this situation contributed to a sense of laziness, as he primarily relied on Google for information.

"*On another point, I think we were just lazy. We did not have the energy to study because we knew we had Googled that would help us, so yeah*" (S5).

Participants S6 and S7 said it took much work to adapt online during COVID-19 as they needed help connecting to the internet. S6 mentioned that his performance decreased significantly, resulting in lower academic results during the pandemic. Similarly, participant S7 shared that he experienced a decline in grades and overall performance, as he was unable to study effectively at home or collaborate with peers in a group setting. This is what he had to say:

"*COVID-19 was an experience that students in a historically disadvantaged university can never forget. We went through difficulties learning in the university"* (S6).

"*Ah, COVID-19 influenced our learning because we were expecting to experience the walk-in registration, but everything has to be done online, and also, the passing rate did drop because we were not able to study on time and were we not able to study on groups so that we can share information*" (S7).

Findings from students and lecturers indicated that COVID-19 significantly affected teaching and learning in this historically disadvantaged university at KwaZulu-Natal. Thus, teaching and learning were significantly disrupted, and students could not be actively engaged. This observation aligns with the findings of Dube (2020) and Ajani (2023), who note that many students in rural universities across South Africa faced challenges in being actively involved in online learning. Similarly, Maphalala et al. (2021) posit that many students from rural universities in KwaZulu-Natal experienced a digital divide that restricted or limited their participation in online learning. Thus, adjusting to the transformation in higher education was challenging for students at this university (Motala & Menon, 2020). According to Mezirow (1997), transformative theory comes with new concepts that require stakeholders to embrace and adjust to the new norms, navigating their ways within the new approach. However, Mezirow (1997) asserts that adjusting can be smooth with the necessary support. Aborode et al. (2020) opine that many African university students could not be integrated into the transformative approaches that came with COVID-19, especially in teaching and learning.

4.3.3. TRANSFORMATION PROCESSES AND OUTCOMES.

The COVID-19 pandemic has caused significant disruption in how traditional higher education institutions offer their courses. Unlike previous transitions from face-to-face teaching to mixed, online, or flipped classrooms, changes in emergency remote teaching occur unexpectedly and abruptly. According to Mezirow (1997), transformative theory introduces new ideas that everyone must accept and adapt to in order to move forward with the new strategy. Findings from both the students and the Lecturers has shown that they went through transformation processes and as a results this had some outcomes.

Participant S2, a student, stated that changing from their conventional method of doing things interfered with their academic success. Participant stated that it was quite difficult to get anything done. Some students and a lecturer also agreed with participant S2.

"Alright, I personally prefers interactive learning, that is how I learn best. I have been doing this since high school whereby, we go to the library and discuss the subject together. In university, the first tests before COVID-19 myself and friends used to go and discuss at the library. COVID-19 lockdown happened and we were at home and I had to study by myself. I really struggled and end up failing most of the modules and had to repeat them the following year "(S2).

Student 4 and 6 stated that their Lecturer was struggling with technology, the teaching was not interactive as students were muted all the time. Leaving students uncertain and unsure about the learning materials and as a results failure during exams.

"Well, I am going to be very honest with you, as you can see that I am old and I was born before all these technologies; I had a very difficult time. I stay with my husband only who is the same age as me and we are both not really clued up when it comes to the ICT. I struggled a lot with entering marks on excel, it kept on erasing data and I had to start over and over again and this resulted in fatigue. As a consequence, there were lot of errors in marks allocation" L4.

4.3.4. CHALLENGES OF TEACHING AND LEARNING DURING THE COVID-19 PANDEMIC

Findings from lecturers and university students showed that they encountered several challenges during the COVID-19 pandemic. Participants reported significant difficulties with teaching and learning during the height of the COVID-19 pandemic, which adversely affected their educational experiences. Participant L1, a lecturer, complained that it was difficult to access his students, as many lacked regular communication. He also complained that one major challenge experienced during the COVID-19 pandemic was poor internet connection on the part of the students, as most of them were located in rural areas. Other participants also mentioned during the interview that most students struggled to access personal computers for online learning activities and assessments. Participant L1 had this to say:

"*Okay, I will say that it was tough to access our students, so we did not have the means to communicate with them. Access was challenging as time went by, we managed to manoeuvre things around, we managed to get there, even if we got there our students struggled with internet connection because some of their submissions were behind, others were not submitting on time*" (L1).

Lecturer L5 also concurred that teaching and learning were difficult during the COVID-19. He expressed:

"*Tjoo, Covid-19 was a flame in this university. Students lost interest in learning, and their participation was tough. Many did not participate. At the same time, some of them deregistered due to a lack of access to online learning. Most of our students are from poor economic backgrounds and live in rural communities where access to internet or communication is a problem"* (L5).

Participants S9 and S12 also discussed the challenges they faced with their studies during the Covid-19 pandemic. S9 complained that when he was at home, sometimes he had to do his home chores, and he no longer had the zeal for studies as his mind would be blocked after that, while S12 complained bitterly of poor network connection because he comes from a disadvantaged community. This is what they both had to say:

"*As I have said, I could not attend school, so I had to do my home chores at home. Most of the time, I was not ready to study; my mind was blocked because I had to do many house chores, and the environment was not conducive, so I did not have the vision that I would be something else one day. So that is what was the challenge at first*" (S9).

"*Well, I can say poor network connection was a serious problem because I am from a very disadvantaged community where network connection is feeble, and you know there was load-shedding which made it very difficult*" (S12).

Participants L3 and L1 reported experiencing similar challenges while studying during the COVID-19 pandemic, particularly related to internet connectivity issues. This is a common problem among students living in rural areas, and the university under study is situated in a predominantly rural area. Most of the students at the university come from these rural areas. The lecturer noted that when he logged in for classes, he often found that over 50% of the students were offline, making teaching difficult. This situation posed significant challenges during examinations, as many students resorted to copying directly from their textbooks due to their lack of class attendance, resulting in a limited understanding of the material taught. This is what participant L3 had to say:

"*The connectivity issue is the problem. As you know, the University of Zululand is situated in deep rural areas, and most of our students are from the rural areas. So, you can tell if there is no connectivity in the rural area. Connectivity issues are very high. So, we will set up online class slots for a certain time, and you will only find that 50% of the class is not online*" (L3).

Participant L1 further expressed:

"*UNIZULU is a rural university, so most of our students are from deep rural areas. Same with some of us who are lecturers. Poor network, load-shedding and unconducive environment were some of the problems encountered. Students live in homes without quality time to study, even if they want to. Some do not have personal computers, some cannot afford internet services, while others do not have network services!*" (L1).

During the interviews, Participants S4 and S5 also complained of poor network connection. Both had this major challenge during the COVID-19 pandemic, which restricted their studies. S4 also mentioned that he had to figure everything out as a first-year student and was not used to using a laptop to write university assignments. However, he did manage to pass. In contrast, participant S5 explained that, aside from his poor network challenges during the pandemic, it took much work to access learning materials or communicate with the lecturers. As all interactions were conducted online, he felt that lecturers often overlooked messages sent via WhatsApp and email.. This is what he had to say regarding the study challenges he faced during the Covid-19 pandemic:

"It was late submissions most times for assessments as we lacked network connection when we had to submit, and you cannot access other tasks, and it was not easy to access our lecturers. It was just online stuff; if they ignored you via WhatsApp, you could not consult, and if you had problems, you had to use emails, which took time for them to respond, so that was very difficult" (S5).

Most of the issues that the participants complained about had to do with internet problems. Participant S6 stated that he had issues connecting to Moodle to do his work. He also mentioned that his academic performance was severely affected due to the numerous challenges he faced while studying from home during the Covid-19 pandemic. S6 expressed a desire for a tablet to facilitate his work, as he was forced to rely on his phone for all his academic tasks, which he found inadequate. This he had to say:

"One of the major problems I was having was logging in to Moodle, so I had to find some ways to find a network, especially where I stay rural. Sometimes, you will find there is no network. You have to climb some hills to get a network. When you have to do your work, you have limited time on Moodle to do it, and you will run out of time because everything, when it was at school, was as easy as going to the computer lab to do my work" (S6).

During the interview, participant S7 said that although he used his brother's laptop during the COVID-19 pandemic for his studies, he struggled with network connection difficulties.

"*I do not have a personal laptop, so I always use my brother's. However, I had issues connecting, and the cost of an internet subscription is killing me. I could not afford it most of the time. The ones I bought I could not connect due to poor network, and I became frustrated with the online learning at a point*" (S7).

The findings of most participants indicated that teaching and learning faced various challenges, particularly as students struggled to access online learning adequately and consistently. Before the COVID-19 pandemic, numerous studies reported that many rural educational institutions had inadequately embraced or integrated learning technologies into their teaching practices for various reasons (Heddings et al., 2020; Garidzirai & Garidzirai, 2021; Mkhize, 2022). Gittings et al. (2021) argue that rural universities in South Africa must effectively integrate computers and other learning platforms into their teaching and learning processes.

Ajani (2023) points out that students transitioning from rural high schools to rural universities often lack essential computer skills. Dube (2020) and Woldegiorgis (2022) further agree that rural students typically encounter computers for the first time at university, which impacts their ability to utilize technology for academic activities. Cranfield et al. (2021) assert that the use of computers in universities transforms students' academic journey. Mezirow (1997) describes the acceptance of transformation as self-induced and driven by students. However, Heddings et al. (2020) and van Schalkwyk (2021) contend that transformation can be motivated to drive its implementation. Consequently, Gumede and Badriparsad (2022) concur with Mezirow (1997) that transformation enhances learning when appropriate measures are put in place.

4.3.5. SUPPORT TO ENHANCE TEACHING AND LEARNING

The study extracted views of the students and lecturers of the historically disadvantaged university in KZN on the effect of the COVID-19 pandemic on their academic activities and studies and support to enhance teaching and learning. The previous themes highlighted extensively the challenges experienced by the lecturers and students during the pandemic.

One major issue they all had in common was poor internet connection. This is particularly understandable because these students reside in deep rural areas where the university is situated, and therefore, this issue was a general issue. Views about the support they need to enhance teaching and learning in the event of a second wave of Covid-19 were sought.

Participant L1 talked about the support he thinks students need in case there is an outbreak of COVID-19 in the future. He stated that adequate and suitable infrastructures should be provided to enable the lecturers and students to access or use in the event of the second wave of the pandemic.

"First of all, I think even we, as lecturers, were also supposed to be provided with electronic gadgets because it was not all of us that had them at that time and also, as I have mentioned, some of us lecturers stayed in rural areas, and we struggled with network connection by that time. So, I feel the university should prioritize infrastructure and resources. Both lecturers and students should be provided with resources and data. These are necessary for online learning" (L1).

On the other hand, participant L1 requested support regarding computer knowledge he did not have during the Covid-19 pandemic. He believed he would have been a great student without the pandemic.

"I do not know what to say, but if COVID-19 were not here, I would have been a great student who would have upgraded my studies more because I would be used to being at varsity. So, the support I needed was dead as I needed to be introduced to varsity life and varsity learning because I was used to high school learning. So in my knowledge, I needed support in terms of my computer knowledge. I have little knowledge" (S1).

Participant 9 shared his ideas during the interview on the support he thinks students would need in case of events like the pandemic in the future. He believes a good internet connection would help encourage students' attendance of online classes without difficulties. This is what he said during the interview:

"That is kind of the difficult question (Laughing); let me just say it would have been taking me to the place where the network is good so that I can attend my online classes without problems" (S9).

Participant L2, a lecturer at the university, shared his opinion during the interview on the support he believes would help the students in case a second wave of COVID-19 hits the country in the future. He believes the university should provide the students with PCs and short training on computer skills so they can effectively use the devices in their studies in case a second wave of COVID-19 hits the country. He also recommended that students, particularly those residing in the rural areas surrounding the university, be provided with data access. This is what he had to say:

"Students should be allowed to attend online classes, if possible, maybe once a week face-to-face. We will also recommend that our university provide extra data for those in deep rural areas. If they were given the opportunity to come and stay on campus that way, they would have done better. Maybe the university could have provided computer training to the students before giving them those computers, and maybe a short training should have been provided to enhance their computer skills" (L2).

Participant S3 also shared a similar view with the previous students. According to him, the university should provide them with laptops and data so they can easily access the internet and attend classes in case of another COVID-19 outbreak. Similarly, L3, a lecturer at a disadvantaged university, also had the same opinion. He said the university should have taken the initiative by giving each student a laptop. The laptops would have made a difference as most students were limited to using their smartphones for their studies. This is what he has to say:

"*I think what was supposed to happen as soon as the president of the country declared a pandemic was that they should have taken the initiative to give each student a laptop. They would have made a difference, and maybe the students would have tried to go to the nearest town during those lecturer time slots. Another thing is that we as staff were left behind with certain strategies that could be used, so you find that a lecturer had his strategy, and I was also using my strategy, which confused these students. Also, there*

was a clash in classes because one lecturer wanted to engage with students on a particular day and time. In contrast, another lecturer also wanted to engage the same students simultaneously. At first, the lecturers would have sat down and devised a common strategy about how the learning would take place because remote learning was not easy during COVID-19, and till now, students are still struggling" (L3).

Participant S4, a student at the university, wished he could be given internet data so he could study and do research at home. This could help him in his studies if there is a second wave of Covid-19. This is his statement:

"I think if they were giving us internet data so that we could do the research at our homes, as we were not allowed to come to the campus, things would have been easier" (S4).

Another participant, S7, a student, shared his perspective on the support students would need in the event of future crises like COVID-19 happen. Acknowledging that internet connectivity and access to devices are significant challenges, he expressed a desire for internet bundles to facilitate online access. He noted that initially, students had access to free internet bundles but this support was later withdrawn, forcing them to purchase bundles with their own funds. This he had to say:

"Support, if we had internet bundles and at first we did have the access into internet bundles then all of the sudden we were not receiving it, so we have to buy it with our own money, and we had Moodle problems as Moodle was not free we had to use our own money" (S7).

Another student elaborated on the best ways to support students in the event of a second wave of COVID-19. He emphasised that the university under study is situated in a rural area; the students are not exposed to online learning and have always been in physical contact with their lecturers. It would require significant effort to adapt to the new online learning methods. However, if they were given devices and good internet access, it would help and make things easier. He said he would like to be given a laptop or tablet to enable him to learn effectively in case a second wave of Covid-19 hits the country. This he said further:

"So, it was tough for us just to be there as for the first time we were expected to adapt to this thing because sometimes they will tell us to log in to Microsoft Teams, and I did not know anything about that Teams or visual understanding, I also come from rural villages, and everything was just new to us. I think it would be much better if we were given tablets, as I was using my phone. The university had to close due to Covid-19, and I worked at home. It would be much better if they gave us some laptops or tablets to work with as not all of us could afford these gadgets" (S6).

In simple terms, participant S7 said he would like sufficient data and more time to complete his assignments. He believes that this support will help students cope effectively if a second wave of the Covid-19 pandemic hits in the future. This he had to say regarding this:

"*I think if only we were being provided with sufficient data and more time to complete our assignments for our due dates and also with the studying material as we were not able to access most of the information we needed for the assignment and, also for studying during that time"* (S7).

Participant S9 provided detailed suggestions on how to facilitate effective studying from home in the event of a second wave of COVID-19. He proposed that students should have the opportunity to meet with their lecturers in person at least twice a week. Additionally, he emphasized the importance of providing each student with reliable internet access and laptops to support effective remote learning.

"*So, maybe they must make plans for students to see the lecturers twice or thrice a month because if they shut down the universities forever and expect us to study remotely, I think that is impossible. It was impossible for me, but I think it was a challenge for everyone because even the other students said that, while some did not drop, maybe they got higher marks, but that was not the true reflection because we had tests online and had the chance to cope. So, it was not your true reflection, and you never learned anything. So I will just say the exams and everything should be done at school and see how they can manage with face-to-face examinations. Students should be provided with laptops,*

whether funded or not. University should endeavour to provide all necessary gadgets to students, to support them" (S9).

The findings from the participants indicated a clear need for greater support from the university. This lack of support contributed to many students skipping online classes while others chose to deregister during the academic year (Pule & Mayer, 2021; Pandi et al., 2022; Reimers, 2022). Jacob et al. (2020) and Onyema et al. (2020) affirm that inadequate support to students during the transformation to online learning affected students' engagement and participation in most rural higher education institutions. Konyana (2023) and Out et al. (2023) report that rural universities in South Africa suffered setbacks in their transition to online learning because students needed more appropriate gadgets and computer skills. Ajani (2022), in his study of a historically disadvantaged university in KwaZulu-Natal, reports that students had various perceptions about online learning. According to Ajani (2022), the students lamented the lack of support from the university, as they were frustrated during the pandemic.

Mezirow (1997), Tamrat and Teferra (2020), and Tella (2022) advocate for adequate support in transformative theory. According to Mezirow, new approaches will always be new to many in any organization and require training, materials and other necessary items to integrate the transformation. Spaull and Van der Berg (2020), Landa et al. (2021), and Soudien et al. (2022) agree that one big challenge online learning during COVID-19 in South African universities was the issue of access to learning by students. Landa et al. (2021) note that many students come from low-income backgrounds and cannot afford personal laptops, internet subscriptions, or the necessary skills to participate effectively in online education.

Overall, various studies confirm that students did not receive adequate support from the universities during the COVID-19 pandemic, particularly across different institutions in Africa (Motala & Menon, 2020; Mkhize, 2022; Maphalala & Ajani, 2023)

4.3.6. STRATEGIES TO SUPPORT TEACHING AND LEARNING IN THE FUTURE OCCURRENCE OF PANDEMIC

The selected university is a historically disadvantaged rural university where most students are from poor backgrounds and cannot afford necessary learning gadgets except free provision by the government. Since these students are in the university, free laptops and internet connection have to be provided by the university to these students. The study sought strategies from the participants to support teaching and learning in future pandemic occurrences. These participants provided various views on their assessment, which included the following submissions:

"*Our university is not only rural but also historically disadvantaged. It requires much funding to assist these students from rural high schools, where they have no computer knowledge. Hence, the onus is on the university to provide them with personal laptops and necessary ICT training to expose them to digital learning*" (L2).

"*These students need intensive computer literacy to be introduced to Moodle and its features. The students need to be trained on how to access digital platforms for learning purposes and be given personal computers, whether funded or not. These students are from poor homes and cannot afford the gadgets. WIFI resources should be upgraded. You find students clustering around offices, lecture rooms and clinics to use the internet. WIFI should be strengthened so they can access or use it anywhere on campus* (L5).

Lecturer participants highlighted strategies that can be applied to enhance teaching and learning in future occurrences. The lecturers identified some students' lack of personal computers and computer knowledge, which should be addressed. Konyana (2023) posits that students can only survive with digital learning in today's education as this widens student learning. Jacob et al. (2020) describe efforts to transform students into global learners, enabling them to remain relevant and compete internationally through access to digital learning resources.

Ajani (2023) emphasises the need to address the digital divide among rural students in South Africa by providing the necessary resources to facilitate their transformation. Mezirow (1997) asserts that the transformative approach provides leverage for all

students in the learning space. Le Grange (2021) indicates that the emergence of the pandemic has unveiled the realities in South Africa's higher education and highlighted opportunities that stakeholders must embrace.

Therefore, Olawumi and Mavuso (2022) and Ajani and Khumalo (2023) advocate for enhancing online teaching and learning in rural universities through strategic repositioning. Similarly, other scholars advocate for the adoption of more effective strategies by various universities to motivate students' use of online learning for better learning experiences, as well as to promote transformative waves of online teaching and learning in higher education across the globe (Naidoo & Cartwright, 2020; Ngubane & Makua, 2021; Mtshweni, 2022; Newlin & Kiiza, 2022; Ngoatle et al., 2022).

4.4. Chapter Summary

This chapter presented and discussed the findings of this study, as collected through semi-structured interviews with ten university students and five lecturers regarding the impact of COVID-19 on the academic performance of students at this historically disadvantaged university in Kwazulu-Natal. Participants expressed that establishing support systems would help them overcome these challenges if there is a second wave of COVID-19. The participants highlighted a lack of computer knowledge, insufficient access to computers, poor network and limited internet access as challenges of COVID-19 on academic performance. The participants advocated for the provision of ICT resources and computer training as essential strategies to enhance online teaching and learning, ultimately leading to improved academic outcomes.

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1. INTRODUCTION

This study aimed to explore the impact of the COVID-19 pandemic on the academic performance of students at a historically disadvantaged university located in the province of KwaZulu-Natal, South Africa. This study was able to establish, from the participants and extant studies, the impact of COVID-19 on students in HDU in South Africa by providing answers to the research questions. The study's findings revealed an in-depth understanding of the phenomenon, which can be used by the stakeholders in the system and the policymakers for strategic interventions and preparations for future occurrences in the education system. Thus, the study will provide the management with strategies for effective planning, administration, and adequate implementation of ICT adoption and usage for enhanced teaching and learning. In the previous chapter, the researcher presented detailed findings from the systematically analysed data from the purposely selected participants for the study.

The current chapter presents the study's summary and conclusions based on the study's key findings and recommends strategies that could be embraced to ensure adequate use of ICT for teaching and learning in historically disadvantaged universities. Findings are therefore presented under each of the research objectives. The study's objectives were as follows:

5.1.1 To explore the impact of the COVID-19 pandemic on students' academic performance at a historically disadvantaged University in KwaZulu-Natal.

5.1.2 To ascertain the challenges students experienced during the COVID-19 pandemic at a historically disadvantaged University in KwaZulu-Natal.

5.1.3 To determine the kind of support that students require to enhance academic performance during the COVID-19 pandemic at a historically disadvantaged University in KwaZulu-Natal.

Ten fourth-year students and five lecturers in the Faculty of Education were purposively selected to share their experiences during the pandemic. The participants possessed in-depth knowledge of the phenomenon and were able to provide significant answers to the research questions (Kumar, 2019). A qualitative research design was adopted, using face-to-face, semi-structured interviews. These participants were purposely drawn from the faculty of education in a historically disadvantaged university, KwaZulu-Natal province of South Africa, as detailed in chapter three of the study (Research Methodology).

5.2. SUMMARY OF RESEARCH MAIN FINDINGS AND DISCUSSIONS

The key findings of the study are discussed in this section.

5.2.1 To explore the impact of the COVID-19 pandemic on students' academic performance at a historically disadvantaged University in KwaZulu-Natal.

The emergence of COVID-19 came with many adverse effects, as indicated by the participants. Several studies also concur with this on education, significantly higher education. According to Maphalala et al. (2021), rural universities in South Africa experienced more significant adverse effects than their contemporaries in urban communities. Jansen (2020) reports that the higher education landscape in South Africa witnessed a significant setback during COVID-19, with rural students disadvantaged from accessing online education, as demanded by the pandemic. Ajani and Khumalo (2023) assert that rural university students in various parts of South Africa experienced a more comprehensive digital divide as one of the significant adverse effects of the COVID-19 pandemic on higher education. Hence, findings on this objective indicated that several factors are responsible for the impact of the pandemic on students' academic performance at the historically disadvantaged university. The participants were located in different rural communities during the pandemic and were affected by the pandemic. The lecturers acknowledged the students' claims of the impacts of COVID-19 on their academic performance. According to Maphalala et al. (2021), the emergence of COVID-19 impacted rural students, who were mainly from the historically disadvantaged communities in South Africa.

Bube (2020) asserts that the advent of the pandemic disadvantaged rural students, whose access to the Learning Management System (LMS) was affected. Tella (2022) reports that students in rural universities in South Africa could not maximise online learning, as provided as the only alternative approach to teaching and learning in higher education. Ajani (2023) argues that the existing digital divide in higher education became more pronounced between rural and urban-based students in South Africa, especially during the pandemic. Reimer (2022) opines that the absence or inadequate resources for digital learning and assessments in rural universities prevented rural students from adequately benefitting from digital materials during the pandemic. Graham et al. (2020) avow that most rural students must possess the appropriate skills or have the resources to compete with their contemporaries in the cities.

Meanwhile, Ajani and Khumalo (2023) advocate for students' needs assessments in rural universities to enhance students' access to online activities. In this regard, assorted opportunities can be provided for students to access computer literacy to enhance their academic performance, especially during the pandemic (Tamrat & Teferra, 2020). Most rural students in South Africa lack adequate and necessary resources that could be used during the pandemic.

Adarkwah (2020) indicates that some students, due to their educational backgrounds, did not have the opportunity to be adequately introduced to computers, so they needed more knowledge and skills to use ICT during the pandemic. Before the pandemic, the Fourth Industrial Revolution brought about digital transformation in the education system (Reimer, 2022). Thus, there was a shift from face-to-face classroom practices where lecturers were seen as sole sources of knowledge to student-centred (Murire & Ciliers, 2019). This shift to digital learning in higher education is a significant transformation (Le Grange, 2021). This concurs with Mezirow (1997), which explains transformative learning as a theory of learning that changes curriculum delivery using ICT (Le Grange, 2021). Transformative learning focuses on the idea that students can adjust their thinking based on the latest information (Reimers, 2022b).

Conclusively, most lecturers acknowledged the pandemic's impact on their students' academic performance. According to Naidoo (2020), in his longitudinal study, the users of ICT can appropriately use ICT for teaching and learning effectively if favourable factors are provided.

5.2.2. To ascertain the challenges students experienced during the COVID-19 pandemic at a historically disadvantaged University in KwaZulu-Natal.

The focus of this research objective was to explore the challenges students faced during the COVID-19 pandemic in historically disadvantaged universities and how these challenges impacted their academic performance. Findings from the various participants revealed that students experienced various challenges that restricted or limited their access to the use of ICT in teaching and learning. The participants admitted that as their access to learning was restricted, they also experienced challenges in participating in various assessments, as these were posted and required to be submitted or accessed online. Ajani (2023) argues that the emergence of ICTs and their global acceptance into education have yet to be significantly encouraged by various stakeholders, especially in rural universities in South Africa, to improve teaching and learning. According to Mhlanga and Moloi (2020), the adoption and effective implementation of ICT into teaching, learning and assessment in rural universities will improve classroom productivity, make learning content easily accessible, non-abstract and convenient to students at their chosen locations, not necessarily confined to the four walls of the classrooms. Similarly, Mkhize (2022) asserts that students are self-directed to learn at their own pace and expand their understanding of learning content in the classroom.

According to Mwapwele et al. (2019), using ICT in the educational system will enable students to learn concretely fast and reduce teachers' dominance of instructional delivery. The participants agreed that the use of ICT in higher education enriches teaching and learning:

"*Various learning technologies and platforms have dominated today's educational system, and every student aspires to know about ICT to explore broad online learning materials and assessments. However, those of us in rural universities and rural*

communities across KZN struggle to enjoy the technology. You need good internet if you want to find information, submit an assessment, or write an online assessment. It is known that rural communities do not have strong internet services. This is when you even get expensive internet subscriptions" (S4).

However, access to online learning materials and assessments was restricted or unavailable to many participants. These included students' need for computer knowledge and literacy skills and lack of resources.

"Many of us are from impoverished socio-economic backgrounds, and our educational backgrounds did not prepare us for the pandemic. We attended high schools where no ICT was available. While our university is rural, adequate and necessary personal resources have not been there for us." (S5)

Findings from the lecturers further corroborate students' claims of challenges. Some lecturers also admitted that the ICT resources challenged teaching and learning and their academic performances. Mutsure (2019) and Mwapwele et al. (2019) affirm that computer competencies are critical to the education system in this 21st era, as students require adequate competencies to access information, which can enhance their relevance to modern-day careers. Mezirow (1997) argues that some factors will constantly challenge innovation. However, with the readiness and willingness of the people, transformation can always be attained. According to Murire and Cilliers (2019), the adoption and integration of ICT in many parts of Africa continue to face many challenges, and these challenges hinder or slow down the pace of transformation in the education system. Hence, Maphalala et al. (2021) report that the long-existing challenges of ICT integration in higher education worsen students' academic performance during COVID-19. Ajani (2023) reports that one of the mitigating effects of the pandemic in rural universities in South Africa was the rural students' inability to adequately access or continue to learn or partake in various online assessments during the pandemic, which therefore negatively impacted students' academic performance in historically disadvantaged universities. Students, including load-shedding and lack of personal laptops, experienced several critical challenges. Furthermore, Moonsamy et al. (2022) assert that using ICT for instructional

delivery, teaching, and learning became challenging to students and lecturers in higher education, most notably for the rural-based ones. According to their study, poor network services, students' inability to actively participate in various assessments and lack of resources at home since it was lockdown influenced students' academic performance.

5.2.3. To determine the kind of support students require to enhance academic performance during the COVID-19 pandemic at a historically disadvantaged University in KwaZulu-Natal.

Findings from the participants indicated that students struggled a lot during the pandemic, primarily to participate actively in all the required activities. Hence, this object sought to establish the extent or type of support received by these students during the COVID-19 pandemic. The pandemic came suddenly and required students to be maximumly supported to cope with the sudden disruptions in their academic lives. Ajani and Khumalo (2023), in their study, report that the impact of the pandemic on higher education, most notably in rural universities, was grievous, as rural students from rural universities were significantly disadvantaged. Mkhize (2022) affirms that the digital divide is real in South Africa, with the gap widened further during the pandemic. Mhlanga and Moloi (2020) posit that the pandemic transformed instructional delivery approaches, using online platforms only to salvage the academic calendar. Mezirow (1994) argues that transformation in any organisation is bound to face diverse challenges, but the strategies or support provided can alleviate the challenges associated with the transformation. The support expected during the pandemic was to provide strategies that could ensure students' participation in teaching and learning tasks during the pandemic. According to Naidoo (2020), various rural universities in South Africa endeavoured to support students, but more was needed to enhance students' academic performance. Ogundile et al. (2019) affirm that the effective use of various learning technologies, as embraced by most developing African countries to promote the trend of 4IR, requires adequate and varied support from the stakeholders. Njoroge (2018) advocates for motivating strategies that can effectively drive students and lecturers to embrace ICT for curriculum delivery and assessment by providing appropriate resources and capacity building for students on computer skills.

Thus, the emergence of the pandemic caught many rural students unaware and many students needed to have the required computer knowledge and skills for their academic performance (Dube, 2020). Oke et al. (2020) assert that most rural students need more computer skills, affecting their academic performance. Le Grange (2021) opines that most rural students in rural universities only have the opportunity to use computers at the universities after their rural high school education. Mezirow (1994) declares that changes in organisational tasks may be impaired or impacted if the necessary mechanisms are not implemented. According to Mezirow (1997), the provision of appropriate and adequate support by the management in any organisation towards transformation can influence the achievements of the organisational members. Hence, challenges driven by the pandemic existed but became more prominent during the pandemic, as adequate support was not available to the students.

Mahlaba (2020) concurs that the transformation in rural higher education due to the pandemic was frustrating to many rural students. Mahaye (2020) explains that the rural universities embarked upon support such as providing internet subscriptions to students, but only some students were provided for. While Dube (2020) further decries that providing internet bundles to students lasted only a short time, rural institutions could not sustain the provision. Ajani (2023) argues that students who lacked personal laptops should have been provided with laptops, but only those funded were catered to. Thus, students who did not have personal laptops could not move around due to the lockdown and had to seek alternative assistance. Landa et al. (2021) describe student support during the pandemic as grossly inadequate.

The student participants indicated they were frustrated during the pandemic, as they lived in rural communities where the situation was worse; some lamented that they needed training on computer literacy. According to Vadachalam and Chimbo (2017), students use ICT anchors on the received computer training. This supports the plea of some of the participants for the provision of technical knowledge on the use of ICT:

"Many of us have never had computer training before we came to the university. The advent of ICT in the higher education system has transformed the learning spaces. We

were not privileged to be introduced to various aspects of the computer before the pandemic. We had been used to face-to-face classroom practices" (T3).

Findings from the lecturers also affirmed students' claims of inadequate support from the universities towards students' academic performance. The participants called for support:

"*We are in the 4IR where education has gone digital. We want our students to be part of this computer generation. Lessons from the pandemic were not palatable. Most of our students went through a lot. Some could not even participate in learning and assessment due to a lack of personal computers, poor network services, lack of internet subscriptions and other things. Moreover, students should receive appropriate and adequate computer training*" (L2).

Findings revealed that students needed appropriate and adequate support from their institutions during the pandemic. Providing necessary support is critical to student's participation in online learning and assessment. Hence, training should be provided to all students to encourage their use of learning technologies and enhance their academic performance. According to Simon and Ngololo (2018), students' ability to use ICT in learning and assessment ensures their academic performance. This concurs with the theory of transformation propounded by Mezirow (1997).

In conclusion, students at historically disadvantaged universities in rural South African communities require multifaceted support to effectively navigate the challenges posed by the COVID-19 pandemic (Ajani & Maphalala, 2023). Thus, the support could improve students' academic performance, ensuring equity and inclusivity in higher education during an unprecedented global crisis (Le Grange, 2021).

5.3. DISCUSSION OF RESULTS WITH THE RESEARCH TOPIC

The study's primary purpose was to explore the impact of the COVID-19 pandemic on students' academic performance in a selected historically disadvantaged university in KwaZulu-Natal in South Africa. The study specifically and purposefully selected ten fourth-year students and five lecturers from the Faculty of Education at the historically disadvantaged university. The impact of the pandemic was established in the university,

as highlighted in the problem statement. Thus, the impact came with diverse challenges driven by the pandemic and influenced the students' academic performance (Adarkwah, 2020). The emergence of the pandemic brought about the abrupt closure of educational institutions across the globe, transforming face-to-face instructional delivery to digital classrooms (Aristovnik et al., 2020). Hence, teaching and learning, as well as assessment, were conducted online. With the transformation, rural students experiencing the digital divide were hard hit, with these students disadvantaged from online educational activities due to various challenges (Arndt et al., 2020). The lockdown during the pandemic did not allow social gatherings. Hence, face-to-face classes, which many rural universities in South Africa had been used to, could not be conducted again. Students were encouraged to learn and attempt all assessments online. However, the online classroom, which required students to access a computer, laptop, and smartphone connected to the internet, became a big challenge (Ardington et al., 2021).

Most students come from rural communities, where socio-economic backgrounds do not allow them to own personal laptops or computers, and those with smartphones cannot afford the high cost of data subscriptions (Aborode et al., 2020). Though the university attempted to provide support for students with subscriptions of data and provision of personal laptops, Studies report that only students with bursaries were accepted for the provision of personal laptops (Aristovnik et al., 2020; Black et al., 2020; Ajani & Khumalo, 2023). Dube (2020), however, argues that only some students with bursaries received laptops. Mahaye (2020) reports that the provision of data subscriptions to students was only extended to some students, and it was only provided for a few months before the rural universities stopped the provision. Le Grange (2021) asserts that providing necessary resources to all students can enhance their academic performance, apart from being the constitutional right of these students.

The review of various extant literature in Chapter 2 and the presentation of the theoretical framework enables the researcher to provide an in-depth understanding of the social phenomenon, with significant findings from the data collection. Thus, the research study was systematically practical, as described in Chapter 3. Thus, Chapter 3 highlighted and clarified the research paradigm, research design, target population, sampling and

sampling procedures, research instrument, data collection procedures, data analysis and adherence to all ethical considerations needed for the study (Creswell, 2014; Kumar, 2019). While in Chapter 4, the researcher provided an in-depth presentation of findings from the carefully analysed data to answer the research questions (Braun & Clarke, 2006).

Thus, the summary of the research findings in this chapter provided an in-depth and cogent viewpoint from the participants, with confirmation from various extant studies to conclude the impact of the Covid-19 pandemic on the student's academic performance at a historically disadvantaged university in KwaZulu-Natal.

The pandemic has impacted students' academic performance in the selected university. Before the pandemic, most rural students lacked computer literacy and did not possess personal ICT resources (Chiwandire, 2022). This view concurs with a study by Ojo and Adu (2018) that found that rural students in South Africa's higher education system do not possess adequate computer knowledge and also do not have personal computers. The scholars further argue that access to appropriate resources and computer knowledge can enhance students' academic performance in higher education. Mahaye (2020) affirms that inadequate knowledge of ICT and lack of resources by rural students in South Africa resulted in students' stress and frustration during the pandemic. Rural universities could not adequately provide support for all their students during the pandemic, and the inadequate support made some students to abort participation in most tasks, while cases of those who deregistered were established (Naidoo, 2020; Cranfield et al., 2021; Mkhize, 2022).

The provision of laptops and internet bundles to encourage students' academic performance needed to be improved. These findings highlight the impact of the pandemic on students' academic performance in the historically disadvantaged university at KwaZulu-Natal (Gumede & Badriparsad, 2022). The university's readiness to address these problems could encourage and enhance students' interest in better academic performance. With adequate support towards integrating ICT, students can create,

manage, organise, determine, and access learning materials at their own pace (Mwapwele et al., 2019; Hedding et al., 2020).

Submissions from one of the participants were as follows:

"*I have computer skills, but I do not have a personal laptop. I usually use the computer labs, but with the lockdown, I could not participate in many activities. This affected my academic performance*" (S4). Another participant was disappointed: *"I felt bad throughout the pandemic. I do not joke with my education. However, I was rendered useless for the first time as I could not access Moodle. I am from a deep rural area, where the network is bad*" (S8).

The pandemic's emergence has emphasised the significance of technologies in education, with the use of various digital platforms ensuring that teaching and learning can be borderless (Langa et al., 2021).

Findings also indicated that students require adequate support in using learning technologies. Some of these student participants admitted to a lack of computer skills as their crucial challenge and hence called for ICT-based training. A participant said:

"*We offer computer literacy only at year 1; we do not have any other than to self-develop yourself. We want the university to design computer programmes for every year for us, to assist on the use of ICT in teaching and learning effectively"* (S10).

Another finding posited that "*there was a need for us to explore other features of Moodle, for learning and assessment based on the learning context. Available online resources should be described for us"* (S7).

Thus, there are many features of Moodle that students need to be made aware of; they are only limited to a few features ((Mahlaba, 2020). Studies have shown that students must be capacitated to use available learning platforms effectively. According to Naidoo et al. (2019), providing students with appropriate computer skills is necessary to use all learning platforms for both learning and assessments effectively. Naidoo (2020) further advocates for rural students to be provided with computer skills and ICT resources to

break the digital divide that disadvantaged them during the pandemic. Le Grange (2021) avows that students need to be globally relevant to benefit from ICT in teaching and learning without creating a digital divide. Thus, students' academic performance that was impacted during the COVID-19 can be enhanced with relevant support.

5.4. CONCLUSION

The impact of the COVID-19 pandemic on students' academic performance in a historically disadvantaged university in KwaZulu-Natal was the focus of this study. Findings from this critical study revealed that the pandemic impacted the student's academic performance at the selected university. The emergence of the COVID-19 pandemic in the global world, which led the education system to a "new normal" of online learning, emphasised the significance of ICT in teaching, learning and assessment. Students' academic performance was affected significantly, as the rural students lacked adequate knowledge and skills of ICT to be used for assessment during the pandemic. Furthermore, lack of resources such as desktop/laptop computers, internet connectivity, electricity, computer laboratories, smartphones and others are some challenges that impacted students' academic performance during the pandemic. The challenges frustrated some students to boycott academic engagements during the pandemic.

Students' competencies and possession of appropriate resources can motivate and impact students' academic performance in rural universities (Dube, 2020). The exposure to ICT makes learning concrete and motivates students to determine their self-regulated learning and self-paced assessments for their academic achievement. Students must be versatile in learning technologies and platforms to enhance their

academic performance (Maphalala, 2021). Therefore, providing support to students' use of ICT to enhance their learning experiences and academic performance. Rural students should be grounded in ICT skills to make them competitive globally.

5.5. RECOMMENDATIONS

The study presents a significant contribution to the South African higher education system that the stakeholders in the historically disadvantaged university to enhance teaching and

learning. The insightful summary of this study situates significant recommendations within the findings to provide practical strategies to address the challenges of a pandemic on students' academic performance. The recommendations are invaluable to the university management team and other stakeholders in the historically disadvantaged university to strengthen, improve and restructure online learning and assessment for rural students. Findings highlighted the urgent need to do a needs assessment of the resources and other challenges that influence the impact of the pandemic on students' academic performance at the historically disadvantaged university in KwaZulu-Natal, South Africa. Other recommendations are as follows:

Based on the findings and conclusions of the study on the impact of COVID-19 on academic performance at a historically disadvantaged university in KwaZulu-Natal, the following recommendations are proposed:

- **Enhance digital infrastructure**: Universities should invest in improving digital infrastructure with the support of government and private partners. This includes providing reliable internet access, particularly in rural and disadvantaged areas, and ensuring that all students can access the necessary technology for online learning, such as laptops or tablets.
- **Develop comprehensive digital literacy programs**: Implement digital literacy programs for students and faculty to ensure they have effective online learning and teaching skills. This training should cover basic computer skills, online learning platforms, and digital communication tools.
- **Revise academic policies for flexibility**: Academic policies should be revised to offer more flexibility. This includes adaptable deadlines, alternative assessment methods, and considerations for students facing connectivity or health issues. Flexibility in academic requirements is crucial to accommodate students' diverse challenges during crises.
- **Strengthen support systems**: Develop robust systems that adapt quickly to changing situations. This includes creating responsive administrative processes, offering technical support for online learning platforms, and providing academic guidance and tutoring services tailored to remote learning contexts.

- **Foster community engagement and support**: Encourage the development of virtual communities to maintain student engagement and support. Universities should facilitate platforms where students can interact, collaborate, and share resources, helping mitigate the isolation that can come with remote learning.
- **Institute emergency preparedness plans**: Develop and regularly update comprehensive plans that include strategies for maintaining academic continuity during crises. These plans should be versatile and capable of addressing a range of scenarios, from pandemics to other emergencies that disrupt traditional learning environments.
- **Promote equitable access to education**: Implement policies and practices that promote equitable access for all students, regardless of their socio-economic background. This includes offering financial assistance, scholarships, and other forms of support to students disproportionately affected by crises like the COVID-19 pandemic.
- **Engage in continuous research and evaluation**: Conduct ongoing research to evaluate the effectiveness of implemented strategies and stay informed about the evolving needs and challenges students and faculty face. This continuous feedback loop will help make informed policy and practice adjustments.

By implementing these recommendations, the university can enhance its resilience and capacity to provide quality education despite unforeseen challenges like the COVID-19 pandemic. These measures will address immediate needs and contribute to the long-term goal of creating a more inclusive and equitable educational environment.

5.6. IMPLICATIONS FOR FURTHER RESEARCH

This study was limited to ten fourth-year students and five lecturers in the Faculty of Education at a historically disadvantaged university in KwaZulu-Natal, South Africa. There is a gap in the digital divide and the effective use of ICT by rural students in teaching and learning. Practical approaches to enhance students' use of various ICT for teaching and learning in rural universities in the 4IR, as globally promoted and accepted, should be explored in South Africa.

Hence, more comprehensive studies into this social phenomenon to assess and reposition rural universities historically disadvantaged in South Africa could be researched further.

The focus of this study was on a historically disadvantaged university in KwaZulu-Natal, South Africa. Hence the findings cannot be generalised for the locations, province and country. Further studies of the social problem in other rural universities of the country would supplement this study and also serve as evidence of the lived situations in the country.

In conclusion, further research is required to explore how the pandemic impacted students' academic performance in a historically disadvantaged university and rural-based students in South Africa.

5.7. LIMITATIONS OF THE RESEARCH

All the identified objectives of the study were achieved; however, many limitations existed against the study. The research was limited to one HDU within the KwaZulu-Natal province, and a purposive sampling method was used to select the participants for the interviews. Therefore, the findings can only be generalised /

to some countries. Despite the limitations, the study gathered in-depth and sufficient data using semi-structured interviews with the teachers.

5.8. CHAPTER SUMMARY

This chapter summarises and concludes the research findings and presents the appropriate recommendations for the impact of the COVID-19 pandemic on students' academic performance in a historically disadvantaged university in KZN, South Africa. The study's objectives explored the impact of the COVID-19 pandemic on students' academic performance at an historically disadvantaged University in KwaZulu-Natal. Challenges influencing the impact of the pandemic on the student's academic performance were all explored, among others, and established by the findings collected for the data. The key findings revealed that the pandemic in the HDU significantly impacted students' academic performance. Some challenges included inadequate or

need for appropriate resources for students' access to online learning and assessments. However, the impact of the pandemic on students' academic performance provided evidence-based facts for repositioning HDU for improved students' academic performance. Students should be provided with equal opportunities to access education across South Africa. The HDU should reassess the existing structures for improved access to online platforms for students. Computer skills to situate students for effective use of ICT resources for teaching and learning should be provided to support the students. Conversely, the findings further highlighted the necessary feedback mechanism to follow up and support students.

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