

**EXPLORING SPACE, PLACE AND DISTANCED EDUCATION THROUGH THE  
EXPERIENCES OF STAFF AND STUDENTS DURING AND POST THE COVID-19  
PANDEMIC: A CASE STUDY OF A HISTORICALLY BLACK UNIVERSITY IN THE  
EASTERN CAPE, SOUTH AFRICA**

By

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### **EXPLORING SPACE, PLACE AND DISTANCED EDUCATION THROUGH THE EXPERIENCES OF STAFF AND STUDENTS DURING AND POST THE COVID-19 PANDEMIC: A CASE STUDY OF A HISTORICALLY BLACK UNIVERSITY IN THE EASTERN CAPE, SOUTH AFRICA**

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

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I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.



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Date

18 May 2026

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## **ABSTRACT**

The COVID-19 pandemic had a significant impact on higher education environments, both during and post-pandemic, in particular on previously disadvantaged, historically black universities (HBUs). One of its impacts was the imposed transition of academic staff and students at residential universities to online instruction, a measure necessitated by the social distancing regulations at the time. Five years post-pandemic, the restrictions on face-to-face instruction have long been removed, yet many institutions have retained hybrid models of teaching and learning in which face-to-face and virtual elements are blended. There is a growing focus on digital integration in education, with universities developing policies and implementing strategies to support students and academics to navigate digital integration. In light of the temporary removal from place due to pandemic restrictions, this study sought to investigate the effects of online teaching and learning on students and academics at an HBU in the Eastern Cape. The study explored participants' perceptions of their transformed higher educational experience, and preferences. It investigated the challenges faced, the strategies employed and the ways in which spatial and socio-economic backgrounds and factors influenced these experiences and perceptions. This study employed a qualitative dominant mixed-method research design, with data collected using questionnaires distributed to staff and students. The findings revealed that, having experienced both in-person and online learning, students and staff prefer face-to-face instruction. This was mostly a result of the digital divide in HBUs that led to students' and staffs' dependence on campus-based facilities like Wi-Fi and libraries. This highlighted that the digital divide and accessibility issues extend beyond the matter of being temporarily removed from familiar places, as happened during the pandemic. The findings emphasized that for HBUs, stable, place-bound education is the most effective format for teaching and learning, as infrastructural challenges hinder at-home online learning in rural settings. The study noted that participants' negative experiences on being temporarily removed from place exposed the extent of the impacts of already existing spatial and socio-economic challenges that shape HBUs. Thus, HBU academic staff and students cannot afford to lose access to place-based education.

**Key words:** COVID-19; Distance education; experiences; Historically Black Universities; Place; Space

UKUBUYEKEZWA KWESIKHALA, INDAWO KANYE NOKUFUNDA BUQAMAMA  
NGOKUBUKA IZEHLA ZABASEBENZI KANYE NABAFUNDI NGESIKHATHI  
SOBHUBHANE KANYE NANGAPHAMBI KOBHUBHANE LWE-COVID-19:  
ISIFUNDO SENYUVESI ENOMLANDO WABANSUNDU E-EASTERN CAPE,  
ENINGIZIMU AFRIKA

I-ABSTRACT

Ubhubhane lwe-COVID-19 lube nomthelela omkhulu ezindaweni zemfundo ephakeme, kubalwa ngesikhathi sobhubhane nangaphambi kobhubhane, ikakhulukazi kulabo abantulayo, ngokomlando amanyuvesi abamnyama (ama-HBUs). Eyodwa yemithelela kwakuwushintsho lomthetho owabekwa kubasebenzi kanye nabafundi ezindaweni zokuhlala kwizikhungo kuya kumyalelo wokufunda oku-online, umyalelo owadalwa yimigomo ye-social distancing ngaleso sikhathi. Ngemuva kweminyaka emihlanu yokudlula kobhubhane, imigomo yokuhlanganyela ubuso nobuso yayisisusiwe kudala, yize izikhungo eziningi zasebenzisa izindlela ezixubile zokufundisa kanye nokufunda lapho ukuhlanganyela ubuso nobuso kanye nokufunda oku-online kwakuxutshiwe. Kuya ngokukhula ukugxila ekuhlanganisweni kwemfundo edijithali, lapho amanyuvesi ethuthukisa imigomo futhi eqamba amasu ukweseka abafundi ngokusebenzisa ukuhlanganiswa okudijithali. Ngenxa yokugudluzwa kwesikhashana endaweni kuya kwimigomo yobhubhane, lolucwaningo lihlose ukuphenya imithelela yokufunda nokufundisa oku-online kubafundi nezifundiswa ze-HBU e-Eastern Cape. Lolucwaningo lubheka uvo lwababambiqhaza mayelana nezehlo eziza nenguquko kwimfundo ephakeme. Luphenye izingqinamba ababhekana nazo, amasu asetshenziwe kanye nezindlela izimvelaphi zasemiphakathini ezibe nomthelela kulezi zehlo kanye nendlela ababuka ngayo. Lolu cwaningo lusebenzisa ucwaningo lwezinhlobo ezixubile ze-qualitative, idatha yaqoqwa ngosizo lwamaphepha okufaka imibuzo ahanjisiwe kubasebenzi nakubafundi. Imiphumela iveze ukuthi ngemuva kokusebenzisa indlela yokufunda ubuso nobuso kanye nokufunda oku-online, abafundi kanye nothisha baqoka ukufunda ubuso nobuso. Lokhu kwakuvame kakhulu ngenxa yomehluko wedijithali ezikhungweni zemfundo ephakeme yama-HBU okwaholela ekutheni abafundi kanye nabasebenzi bathembele kwizinsiza ezise-campus ezifana ne-Wi-Fi kanye nemitapo yolwazi. Lokhu kubonisa ukuthi ukuhlukaniswa kwedijithali nezinkinga zokufinyelela kudlula udaba lokususwa okwesikhashana ezindaweni ezijwayelekile, njengoba kwenzeka ngesikhathi sobhubhane. Imiphumela igcizelele ukuthi kuma-HBU, imfundo

ezinzile, ethintwe indawo iyindlela yokufundisa nokufunda ephumelela kakhulu, njengoba izinselelo zesakhiwo zivimba ukufunda ku-inthanethi ekhaya ezindaweni zasemaphandleni. Ucwangingo luphawule ukuthi ulwazi olungeluhle lwababambiqhaza ngokususwa okwesikhashana endaweni lukhombise umthelela omkhuluwezinkinga ezikhona zasezindaweni nakwezomnotho ezakha ama-HBU. Ngakho-ke, abasebenzi bezemfundo nabafundi be-HBU abakwazi ukulahlekelwa ukufinyelela kwimfundo esekelwe endaweni.

**Amagama Asemqoka:** Ukhuvethe (i-COVID-19); Ukufunda buqamama; izehlakalo; AmaNyuvesi emilando yabamnyama; Indawo; Isikhala

UKUHLOLA ISIKHALA, INDAWO NEFUNDO YOKUFUNDA UKUDE NGELIHLO  
LABASEBENZI NABAFUNDI NGESIKHATHI NANGEMUVA KOMBULALAZWE WE-  
COVID-19: IRHUBHULULONDATJANA NGEYUNIVESITHI EYABE INGEYABANTU  
ABAMNYAMA ESE-EASTERN CAPE, ESEWULA AFRIKA

ISIRHUNYEZO

Umbululazwe we-COVID-19 ube nomthelela omkhulu eendaweni zefundo ephakamileko, ngesikhathi nangemva kombulalazwe, khulukhulu emayunivesithi ebekade angewabantu abamnyama [historically black universities (HBUs)], adinywe amathuba ngaphambilini. Omunye wemithelela yawo kwaba litjhuguluko elikatelelekileko labasebenzi bezefundo kunye nabafundi lokusuka ekufundeleni emayunivesithi baye ekufundeni nge-inthanethi, igadango elalikatelelwa kugadungana ngaleso isikhathi. Sele kudlule iminyaka emihlanu ngemva kombulalazwe, kanti nemikhawulo yokufundisa ubuso nobuso yasuswa kade, kodwana amaziko amanengi asasebenzisa iindlela ezihlangeneko zokufundisa nokufunda lapha ukufundisa ubuso nobuso kuhlangukiswa nokufundisa nge-inthanethi. Liyakhula itjhejo lokuhlangukiswa idijithali kezefundo, lapha amayunivesithi athuthukisa imithetholawulo namaqhinga wokuyisebenzisa ukusekela abafundi nabafundisi bakghone ukusebenzisa ukuhlangukiswa kwedijithali. Njengombana kwaba nokususwa kwesikhatjhana endaweni ngebanga lemikhawulo eyeza nombulalazwe, isifundo lesi sihlose ukurhubhulula imithelela yokufundisa nokufunda nge-inthanethi ebafundini nebafundisini bezefundo eHBU ese-Eastern Cape. Irhubhululo leli lihlolisise imibono yabahlanganyeli ngelemuko labo elitjhugulukileko ngefundo ephakamileko nalokho abakukhethako. Liphenye ngeentjhijilo ekuhlangenwe nazo, amaqhinga asetjenzisiweko neendlela ubujamo bendawo nomnotho wezehlalakuhle kube nomthelela wamalemuko nemibono leyo. Isifundo lesi sisebenzise indlela yokurhubhulula ehlangeneko nedzimelele kukhwalithi, lapha idatha ibuthelelwe ngokusebenzisa amapahepha wemibuzo anikelwa abasebenzi bezefundo nabafundi. Imiphumela itjengisa bonyana abafundi nabasebenzi bakhetha indlela yokufunda ubuso nobuso, ngemva kwamalemuko walokhu kokubili ukufunda ubuso nobuso kunye nokufunda nge-inthanethi. Lokhu kubangelwa khulu kuhlangukiswa yidijithali ema-HBU obekwenza abafundi nabafundisi bathembele eensetjenzisweni ezisekhamphasi ezinjenge-Wi-Fi namalayibhrari. Lokhu kuveze bonyana imiraro yokuhlangukiswa yidijithali nokufumaneka kwayo kungale komraro

wokususwa kwesikhatjhana eendaweni ezijayelekileko, njengalokha kwenzeka ngesikhathi sombulalazwe. Imiphumela igandelela kobana ifundo yema-HBU enzinzileko nedzimelele endaweni iyindlela esebenzako yokufundisa nokufunda, ngombana imiraro yemithangalasiseko iliya ukufunda usekhaya nge-inthanethi eendaweni zemakhaya. Irhubhululo leli litjheje kobana amalemuko amambi wabahlanganyeli ngokususwa kwesikhatjhana endaweni kuveze ubukhulu bemithelela yeentjhijilo ezibumba ama-HBU ebevele zikhona zeendawo kunye nomnotho wezehlalakuhle. Ngalokho-ke, abasebenzi bezefundo nabafundi angeze bakghona ukulahlekelwa kufumaneka kwefundo edzimelele endaweni.

**Amagama aqakathekileko:** COVID-19; Ifundo yokufunda ukude; amalemuko; Amayunivesithi ebekangewabantu abamnyama; Indawo; Isikhala

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

**DE** - Distance Education

**GB** – Gigabyte

**HBU** - Historically Black Universities

**HEI** - Higher Education Institutions

**HWU** - Historically White Universities

**Non-STEM** - Fields outside Science, Technology, Engineering, and Mathematics

**STEM** - Science, Technology, Engineering, and Mathematics

**ODeL**- Open Distance and e-Learning

# CHAPTER 1: INTRODUCTION

## 1.1 Introduction and Background

Distance education (DE) is a type of education in which students and their educators are separated in space and place, i.e., they operate in different physical locations, and instruction is conveyed through different technologies (Pregowska *et al.*, 2021). Distance education is an established concept, yet has evolved from the old idea of correspondence-based, paper-based education into online education, and is now widely referred to as online learning (Pregowska *et al.*, 2021). Rapid developments in technology, particularly in audio- and video-streaming, have increased the access and availability of educational material through moving learning online (Simamora, 2020). When education is online, education detaches students from space (i.e., campus) or places they typically associate with learning, i.e., lecture halls and laboratories.

Space and place are thus integral principles in studying through distance education because they conceptualise and inform the understanding of distance education (Helfenbeing & Huddleston, 2021). Scholars initially described place as a location with distinctive features that make it unique; however, place has been reconceptualised to include how it is experienced or inhabited (Tuan, 2011; Orthel *et al.*, 2025). In distance education, place links educators and students, and can extend beyond the walls of either campus buildings or their homes (Simon *et al.*, 2022). Places are therefore emergent, dynamic and changing (Raghuram *et al.*, 2023). The COVID-19 drastically changed the nature and dynamic of place for students at a particular HBU in the Eastern Cape, when they were obliged to learn from home despite having registered as campus-based students at a residential institution.

Space and spatial theories, on the other hand highlight how time, physical location, infrastructure, and social factors construct and influence educational experiences, which shape access, interaction and learning outcomes (Hranstinski *et al.*, 2024). For example, the unequal availability and development of infrastructure such as internet connectivity and electricity in communities create a digital divide, which can exclude students in rural or underserved areas (Cristobal-Fransi *et al.*, 2020; Azionya & Nhedzi, 2021). The digital divide refers to the gap between individuals with access

and skills to use technology and those without such access and skills (Folaye & Ajayi, 2021). These factors (time, physical location, infrastructure, and social factors) shape the experience and learning outcomes of distance education for students in these communities. Despite place and space dynamics, institutions strive to provide the same educational standards experienced through traditional face-to-face and online classes in distance education (Raes, 2022).

As already mentioned, the distance education landscape was rapidly transformed by the COVID-19 pandemic in 2020, which abruptly pushed most residential tertiary institutions (Higher Education Institutions – HEIs) to switch from traditional face-to-face classes to distance learning through online classes (Cranfield *et al.*, 2021). The abrupt shift created the impression of resident students being ‘forced’ into distance education because they registered as residential students but the pandemic detached and distanced them from campus and its facilities in lockdowns. This created the impression of ‘distanced education’. This research adopts the phenomenon of ‘distanced education’ to refer to the abrupt and involuntary manner in which residential universities were made to move to distance education through online learning during the COVID-19 pandemic.

Due to the pandemic, South Africa, like most other nations in 2020, implemented nationwide lockdowns during the peak of COVID-19, forcing all tertiary institutions to adopt distanced education as the primary means of teaching and learning for the first time (Mncube *et al.*, 2021). Post-pandemic, most institutions have been left with the remnants of online teaching and learning adopted during that time, and have opted not to return to full-time in-person teaching, but to offer a blended or hybrid form of teaching and learning (Sim *et al.*, 2021).

Although a growing body of literature on distanced education during and post-COVID-19 has provided some account of lecturers and students’ experiences with distanced teaching and learning, most studies have focused on the Global North and less so on the Global South (Yeung & Yau, 2022; Li *et al.*, 2022). This research therefore sought to investigate how the sudden removal of staff and students from physical space (i.e., campus) and place (i.e., buildings) into an online space and place during the COVID-19 pandemic brought about a shift in the educational experience of staff and students; particularly, how they engaged in their teaching and learning processes in this new

environment. The study also extended the focus to the post-pandemic implications of this sudden shift, noting that the move to online education left the higher education space not fully able or willing to maintain online teaching and learning, given financial, technological challenges and other motivations (Katleyana, Mirizon & Machdalena, 2023). The study focused on the challenges faced by academic staff and students of an HBU owing to being physically detached from space and place yet still remotely 'plugged into' it and then having to adjust to traditional classes when the pandemic ended. The study highlighted the strategies developed by students and staff to overcome the challenges of being physically separated from space and place in distanced education; how different spatial and socio-economic backgrounds affected students' and staff's experiences; and their pedagogical preferences when engaged in distanced education.

This study was conducted in the Eastern Cape Province of South Africa, comprising a case study of a historically black university (HBU). The university has three campuses, in Alice, Bisho and East London. This research specifically focused on the Alice campus, owing to its geographical and socio-economic significance to this study, in that it services communities that are rural, predominantly poor and marginalised (Mdiya, 2020; UFH, 2024).

## 1.2 Conceptual Framework

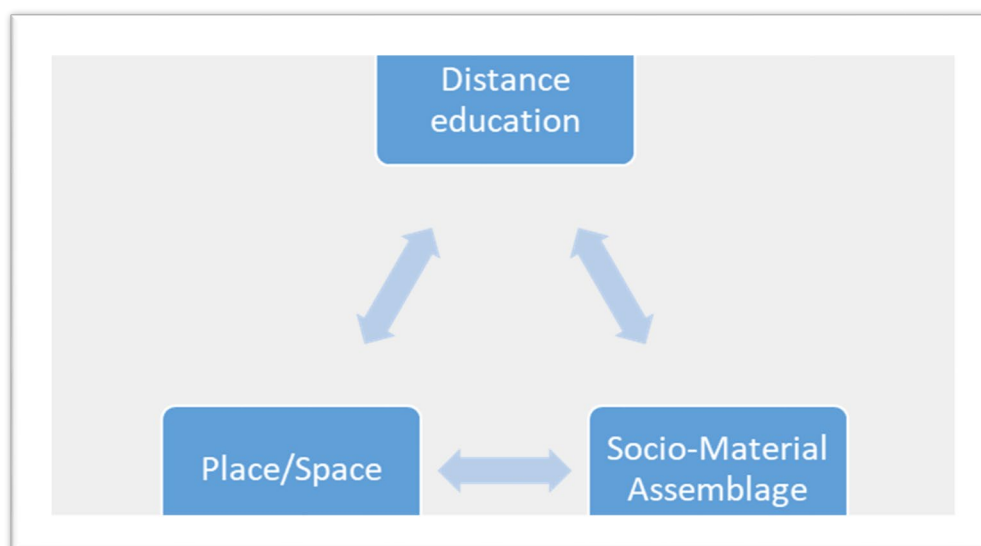


*Figure 1.1: Illustration of the theoretical framework used in this study*

Figure 1.1 shows that the conceptual framework of this study was based on the confluence of three concepts: distance education, place/space theory and socio-material assemblage theory. The three concepts or theories complement each other and form a sound framework or foundation on which this research builds upon.

As noted, distance learning is a type of education where students and their lecturers are separated in space and place; that is, they reside in different physical locations, and communication between them is transmitted through different technologies (Nasrullah, 2014; Pregowska *et al.*, 2021). On the other hand, space is defined as an abstract, objective area defined by coordinates, geometry, and physical distance, while place is a specific location that carries human meaning, emotion, and social value (Massey, 1993; Cresswell, 2004). Hence, distance education, space and place are interconnected and inform each other. This is because distance education brings distant people in different geographical places together, placing them within immediate virtual spaces (Stokols, 2018; Ontong & Waghid, 2021). Therefore, the `where` of studying in distance education is not tied to one space or geographical location, as in the case of place-based or campus-based education (Quarshie, 2022; Hrastinski, 2024). The conceptual framework of this study helped to uncover each student/stuff's place in distance education, because the location from which the individual accesses the online class or course material is of utmost importance to the quality and accessibility of online learning (Anderson & Dron, 2023; Gunter *et al.*, 2020).

Place is an integral element of students' learning experiences (Cranfield *et al.*, 2021; Ng, 2021; Sonnenschein *et al.*, 2021). The various other elements that come together to shape the educational experience of students studying in different places at the same time are explained by the theory of socio-material assemblage (Gunter, 2025). This theory emphasises the combination of social and material elements that come together (assemble) in the educational experience (Carroll, 2018; Bozalek & Zembylas, 2017; Ferri *et al.*, 2020). The theory is relevant to this study in that it shows how students in different geographical locations using different material resources (such as technology, infrastructure, and physical spaces) will interact differently with human actors (students, teachers, administrators) (Gunter *et al.*, 2020). In this study, the focus was on the material resources of students and academic staff from a single HBU. As shown in Figure 1.1, all three elements – distance education, place/space

and social material assemblage – are interconnected and affect each other. For example, the experience of each student in distance education is influenced by the place from which they study, and the place is influenced by socio-material factors, such as the availability and strength of the internet connection and the availability and suitability of digital devices.

### **1.3 Problem Statement**

The main aim of distance education (DE) is to make education accessible to a much larger number of individuals than regular face-to-face education allows (Baloyi, 2012; Ferri, 2020; Mouton & Subban, 2023). By detaching from space and place, DE enhances inclusivity, neutralising the effects of physical distance for students who live in rural or underserved areas or who may not be able to attend physical classes for any other reason, thereby increasing equal access (Hemmingway & Armstrong, 2012; Gunter, 2025). In Africa, equal access is especially relevant because gross enrolment in higher education is only 8%, the lowest of any continent (Mohamedbhai, 2014; UNESCO, 2017). Sustainable Development Goal 4.3 aims to promote equal access for all men and women to affordable quality education, with a clear emphasis on tertiary or higher education (HE). Thus distance education can provide a potential solution (United Nations, 2018). However, recent literature has argued that, depending on the socio-economic and socio-spatial contexts, distance education, especially through online education, can actually restrict access and increase costs because of existing local inequalities (Paschal & Mkulu, 2020; Pettalongi, 2024; Gunter, 2025; Shumba *et al*, 2025).

Inequalities are highly reflected in the South African context where the higher education environment is characterised by contrasting spatial/socio-spatial landscapes and socio-economic and socio-technical marginalisation, which reflect demographic legacies of inequality (Gunter *et al.*, 2020; Madge *et al.*, 2019; Todes & Turok, 2018; Teferra & Altbach, 2003). For example, research has indicated that socio-spatial inequalities in South Africa are evident in rural areas where poor information and communication technology (ICT) infrastructure limits access to reliable broadband and digital services, hindering at-home learning (distance learning) for rural students and leading to a digital divide (Nthambeleni & Motadi, 2025; Aruleba & Jere, 2022;

Aziona & Nhedzi, 2021). The effects of the digital divide are particularly felt in HBUs, which were established to serve the educational needs of specific ethnic groups disadvantaged during the apartheid era (Mngomezulu & Ndlovu, 2013). These universities are characterised by poor access to infrastructure and resources, especially digital resources, subsequently suffering from poor access to education (Mngomezulu & Ndlovu, 2013; Mutongoza, 2021; Mncube, 2023).

Against this background, the sudden move by South Africa's tertiary institutions to distanced education during the COVID-19 pandemic created further complexities for HBUs and their students (Ndzinisa & Dlamini, 2022). The move raised questions such as: How smooth was the transition of HBUs from traditional classrooms to online one and, more recently, the transition back to the traditional face to face or blended classroom again? How staff and students perceived their educational experience when detached from campus and its facilities to work and study, yet still engaged in former place-based activities like conducting lectures, assignment submission and test writing? What roles did socio-economic and socio-spatial backgrounds play in regaining academic agency as the institutions transitioned to distanced learning and then back to face-to-face or blended learning post COVID-19? There is therefore a gap in research on the challenges that students and academic staff faced in navigating this shift and mitigating these challenges during and post COVID-19, in the HBUs of South Africa.

#### **1.4 Aim and Objectives**

The study aimed at investigating the implications of the COVID-19 pandemic on students and academics of an HBU in the Eastern Cape, South Africa, in terms of their lived experiences in distanced education. The study was particularly interested in the implications of being temporarily displaced and separated in space during the pandemic and then having to adjust to traditional face-to-face classes or blended teaching and learning post-pandemic. With this focus, the study investigated the challenges faced and strategies employed to overcome shifts in space and place, and how it influenced their preferences in educational instruction. The study further investigated how the spatial and socio-economic backgrounds of HBU students and staff affected their experience. The study involved students and academic staff in both

the physical (STEM) and social sciences (non-STEM) faculties of the HBU. The objectives were:

- to explore the perceptions and experiences of HBU students of their removal from place- and space-bound learning activities through distanced education during the COVID-19 pandemic, and the influence of post-pandemic educational approaches (the resumption of traditional and/or adoption of blended approaches);
- to explore the perceptions and experiences of academic staff of an HBU of the removal of place- and space-bound teaching and other work activities during the COVID-19 pandemic, and the influence of post-pandemic educational approaches;
- to assess the adaptation strategies devised by academics of the selected HBU, both as a contingency during the COVID-19 pandemic and as measures implemented post-pandemic, to maximise or facilitate teaching success;
- to assess the role of varying spatial and socio-economic backgrounds on the perceptions and experiences of students and academics during and post-COVID-19, in the context of their position at an HBU.

### **1.5 Purpose and Significance of the Research**

The transition from face-to-face education to distanced education during the COVID-19 pandemic from a Global South perspective is under-researched (Daumiller *et al.*, 2021; Yeung & Yau, 2022; Li *et al.*, 2022). Furthermore, the transition back to traditional in-person or blended teaching and learning after experiencing 'distanced education' in the Global South is also under explored (Brodie *et al.*, 2022). As a result, this study sought to use a bottom-up approach to gain insight into the way in which academic staff and students from mostly poor, rural communities experienced being separated in space and place as part of distanced education during and post-pandemic (Yeung & Yau, 2022). This area of study is important in the Global South, particularly in HBUs of South Africa, where multiple inequalities cause divides in the country's higher education landscape. Understanding the experience of distanced education from the point of view of students and academics in HBUs will help contribute solutions to the problems of online learning that affect HBUs, and thus

contribute to learner success in this environment (Fedynich *et al*, 2015). In addition, the study may challenge the assumptions associated with the experience of studying in poor, rural, excluded and vulnerable environments, an experience that is often not portrayed well. The findings may well reveal positive aspects to do with integration, inclusion, and having a strong voice (Lautenbach & Batchelor, 2012). Hence, this research sought to give HBU staff and students a platform to amplify their voices by speaking openly about their experiences of distanced education. In so doing, the study may have a positive effect, showing poor, rural and disadvantaged voices as powerful and worth listening to. It is hoped that the insights revealed will be useful to residential institutions intending to integrate distance education in their structures in the near future. Policy-making by the Department of Higher Education and Training (DHET) could also benefit, since the research will shed light on the needs of HBUs in transitioning to distance education.

## **1.6 Thesis Structure and Chapter Outline/ Conclusion**

This thesis is structured into five chapters.

Chapter 1, the Introduction which introduces the topic, giving the problem statement, the aims and objectives, the conceptual framework and the purpose and significance of the study.

Chapter 2, the Literature Review, which discusses the findings of other researchers with regard to the experiences of academic staff and students of HBUs with distance education.

Chapter 3, the Methodology, describes the methodology used to collect and analyse data on the experiences of staff and students of an HBU in transitioning from face-face to distanced education during the COVID-19 pandemic. The chapter describes the research approach, research design, sampling method used, data collection tools, method of data analysis and the ethical considerations of the study.

Chapter 4, the Results and Discussion, presents the data collected and discusses the implications of the removal of staff and students from place- and space-bound

activities (distanced education) during the pandemic, and their readjustment to traditional face-to-face classes or blended education post-pandemic.

Chapter 5, the Conclusion, which summarises the research, noting key insights uncovered with regard to students' and academic staff's experiences of distanced education, the effects of their socio-economic backgrounds on their educational experiences and their preferences. The chapter recommends ways in which educational authorities could better support staff and students of HBUs in distance education.

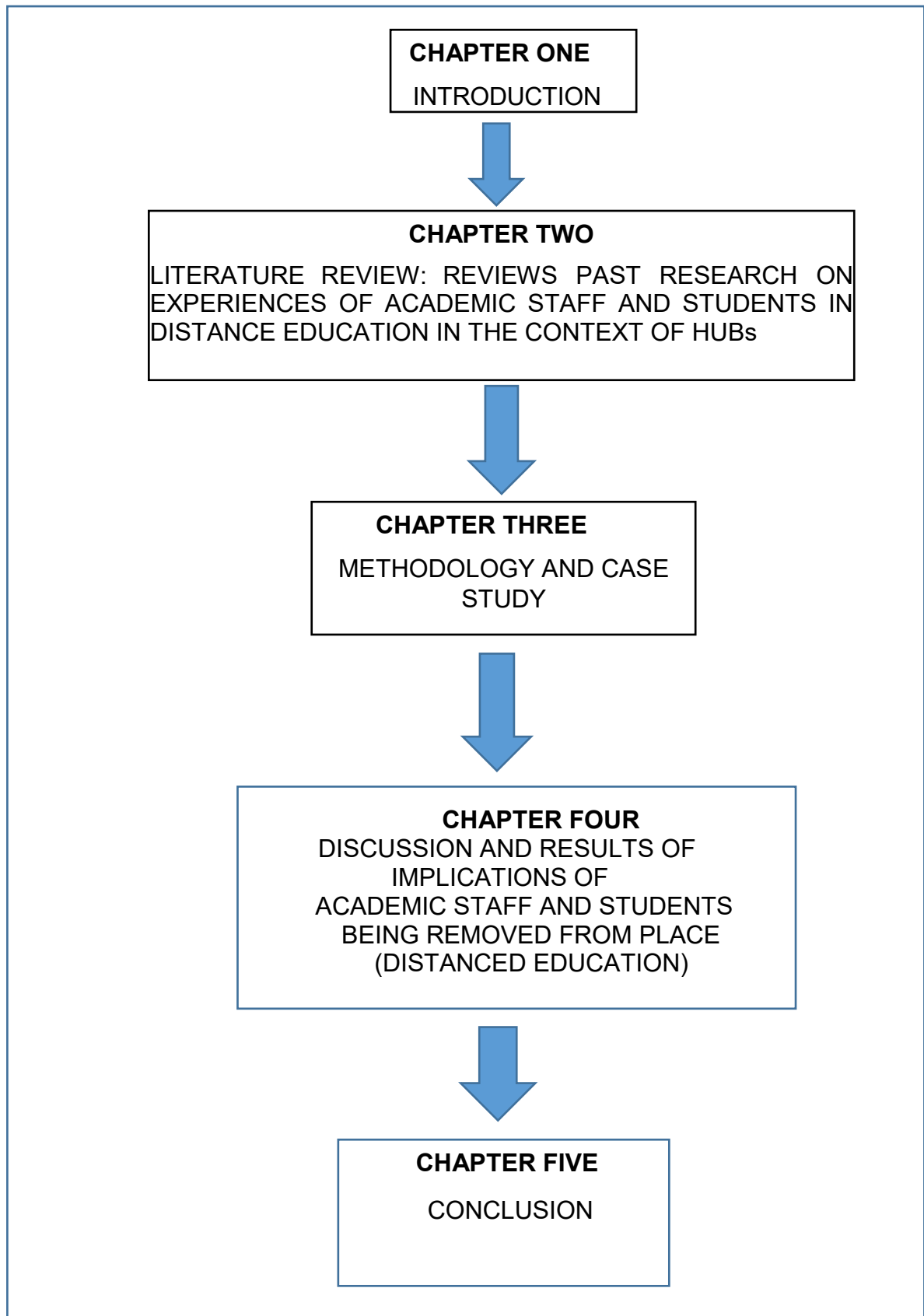


*Figure 1.2: Thesis structure*

## CHAPTER 2: LITERATURE REVIEW

### 2.1 Introduction

Distance education, now more commonly referred to as online teaching and learning, has become a vital component of higher education in the 21st century. Rapid advances in technology have enabled more flexible methods of teaching than were possible with solely face-to-face teaching and learning (Simamora, 2020; Paschal & Mkulu, 2020; Cranfield *et al.*, 2021).

Besides technological advances, in March 2020, the COVID-19 pandemic accelerated the move to online learning. Governments had to close or cancel almost all facilities and activities that were place based, including HEIs (Dube, 2020; DHET, 2020). Students were sent home in nation-wide shutdowns to avoid the spread of the virus that caused COVID-19 (Reddy *et al.*, 2020; UNESCO, 2020). In moving classes online, most universities, especially those in the Global South, brought about an abrupt switch to distanced education (Simamora, 2020), with some institutions managing blended learning (Mahaye, 2020). In the Global North, particularly the United Kingdom, Australia and New Zealand, many higher education institutions had already made the use of online learning platforms compulsory for all students prior to the pandemic, which eased their transition into online learning during the pandemic (Ndilemba, 2022). In the Global South, most residential universities in countries such as India, Brazil and South Africa had not incorporated online learning before the pandemic, which meant that the switch to online learning was experienced differently by students in the Global South from those in the Global North (Hlatshwayo, 2022). In South Africa, at the pandemic's inception, most universities switched to online learning completely, although some universities did not formally announce the move (Mhlanga & Moloi, 2020). Universities like the University of Johannesburg, the University of Cape Town and the University of Pretoria announced to their students that they would conduct classes online in their second semester of 2020 (Mhlanga & Moloi, 2020).

Literature defines online learning in different ways. Sagin (2008) defined online learning as learning that uses online platforms (internet-based) as an intermediary between lecturers and students. Some scholars define online or e-learning as a way of teaching and learning using digital platforms and technology tools (Culduz, 2024;

Nyagorme *et al.*, 2017). Nassuora (2020) defined it as learning implemented through the support of electronic services such as telephone, audio, videotape, satellite transmission or computer. All of these definitions refer to online learning as learning that uses information and communication technology (ICT) to promote educational instruction and interaction between students, lecturers, and other learning communities (Bunt, 2021). This research often uses online learning and distance education interchangeably because it focuses on online learning being the specific method of delivery in distance education. Platforms that have been used for instruction and interaction in higher education include Moodle, Zoom, WhatsApp.com, Skype.com, YouTube.com, Google Classroom and Blackboard (Gillett-Swan, 2017; Mpungose, 2020).

Proponents of online learning/distance education argue that its major value is that it increases access to learning resources to learners despite their geographic location and/or proximity to the university (Jandric & Hayes, 2019; Gunter *et al.*, 2020; (Culduz, 2024). The scholars further indicate that online learning benefits institutions financially by reducing the costs of infrastructure such as classrooms, offices, cafeterias, residences, and libraries while increasing enrolments (Palvia *et al.*, 2018). However, the literature also shows that although intended for these positive outcomes, online/distance education comes with many challenges that affect both the Global North and South. Research has argued that in the Global South – in Africa, to be precise – governments struggle to supply quality online education in rural areas as compared to urban areas (Shabangu & Jita, 2025). Also, a number of spatial and socio-economic factors further weaken the quality of teaching and learning in rural areas owing to low investments in ICT infrastructure in these areas, resulting in a digital divide between rural and urban citizens (Cristobal-Fransi *et al.*, 2020; Kanvaria & Yadav, 2025). Most rural communities, particularly HBUs, lack the social and economic capacity needed to sustain technological improvements, making online learning for such spaces a challenge (Du Plessis & Mestry, 2019).

The digital divide in rural communities is exacerbated by historical legacies, since HBUs are typically located in rural areas and are marginalised compared to historically white institutions (HWIs), which are normally situated in urban areas (Mdiya, 2020). Even within the advantaged HWIs, a divide exists in digital access

between rural and urban students in online learning in the HWIs (Agumba *et al.*, 2023; Mhandu *et al.*, 2021). Since digital technologies are better supported in cities than in rural areas, HBUs tend to lag behind in digital technology, causing them to struggle with distance learning through online learning. This is evident in the findings of this study.

## **2.2 The History of Online Learning**

Online learning was initially developed as a way to improve distance learning by adding new educational approaches and technologies to the old post- and paper-based distance education (Hiltz & Turoff, 2005). Distance learning began with correspondence and the use of parcel post; it then introduced the use of radio, then television, and finally moved to online learning with the introduction of the World Wide Web, or internet (Kentnor, 2015; Anderson & Dron, 2011; Palvia *et al.*, 2018). In the USA, the evolution of online education occurred in four phases: the 1990s (internet-propelled distance education); 2000–2007 (increased use of Learning Management Systems – LMS); 2008–2012 (the growth of Massive Open Online Courses – MOOCs), and since then, the rapid expansion of online learning in higher education (Kentnor, 2015; Dziuban *et al.*, 2016). By 2020, 75% (11.8 million) of all undergraduate students were enrolled in at least one online course in America (National Center for Education Statistics (NCES, 2022).

In Africa, before the COVID-19 pandemic, online learning was still very much in its infancy (Unwin, 2008); by 2001, only a few Sub-Saharan countries had moved from traditional methodologies of distance education (print and audio/video) to ICT (online learning) to support course delivery (ADEA, 2001). South Africa, Kenya and Ghana were among the first countries to embrace online learning (Palvia *et al.*, 2018). In South Africa, the University of South Africa (Unisa), Africa's largest Open Distance and e-Learning (ODeL) institution, was among the first to institutions to embrace online learning (Gunter *et al.*, 2020, UNISA, 2024).

In 2020, COVID-19 catalysed an abrupt switch to online learning as part of lockdowns introduced to protect communities from the spread of COVID-19 (Mhlanga & Moloi, 2020; Pokhrel & Chhetri, 2021; Frola *et al.*, 2024). The sudden shift was more challenging for higher education institutions in the Global South than in the Global

North, since many had little or no ICT infrastructure prior to the pandemic (Hendrics & Mutongoza, 2023). In South Africa, this period was particularly challenging for poor, rural institutions (HBUs), which were already grappling with the effects of historical inequalities brought about by the apartheid regime (Ilora, 2006; Mdiya, 2020; Mlambo *et al.*, 2023).

### **2.3 The Online Learning and Historically Black Universities Nexus**

HBUs were established to serve the educational needs of the ethnic groups that were disadvantaged during the apartheid era (Mngomezulu & Ndlovu, 2013). Underfunding has long characterised HBUs, owing to the legacies of apartheid, which exacerbated the difficulties of adapting to online learning (Mtshweni, 2022; Mdiya, 2020). Underfunding subsequently leading to a lack of adequate ICT infrastructure and resources, and ongoing struggles with poor technology, have caused poor enrolment rates at these institutions (Purnell, 2022; Frola *et al.*, 2024). This, in turn, meant that students from underserved HBUs suffered from poor access to education even before the pandemic (Mlambo & Mdlalose, 2023). In 2020, subsequent to the COVID-19 pandemic, all universities had to adopt online technologies, forcing staff and students to use digital technologies in ways that were new and unfamiliar for many (Mutongoza, 2021). The sudden switch to online learning exposed these institutions' lack of development, ill-preparedness and un-readiness for the change (Hendrics & Mutongoza, 2023; Mlambo & Mdlalose, 2023). While all institutions battled challenges in providing quality education to students in online learning, HBU students bore the brunt of the shift (Mofala & Nkhi, 2024).

Students and staff from HBUs carried a double burden; they were studying and working at institutions already engulfed in inadequacies owing to apartheid legacies and now had the added burden of spatial disruption and having to adapt to studying and working from home with complete reliance on devices and data, which are expensive (Lembani *et al.*, 2019; Hlatshwayo, 2020; Batisai *et al.*, 2022). Besides being expensive, the spatial disruption meant that HBUs, which are often located in rural areas and on the outskirts of urban centres in marginalised communities mean that students from these communities often lack ICT resources like good internet coverage that would make it possible to succeed in online learning (Mdiya, 2020;

Mdiniso, 2022; Hendrics & Mutongoza, 2023). Online learning naturally thrives in communities with access to good ICT infrastructure, which is normally urban communities served by historically white universities (HWUs) (Azionya & Nhedzi, 2021; Mhlanga *et al.*, 2022; Dube, 2020). Due to a lack of good ICT developments, in rural HBUs, the digital expertise of students from HBUs is therefore not as developed as that of their peers from affluent/urban (HWUs) counterparts (Czerniewicz *et al.*, 2020; Hasan & Bao, 2020). This highlights the 'geographical disadvantage' that characterises HBUs in online education (Mdiniso *et al.*, 2022). All these factors contributed to HBUs trailing behind in online environments (Mdiya, 2020; Hlatshwayo, 2020; Dude, 2022).

The 'geographical disadvantage' often refers to systemic economic, social, or developmental limitations based on location's physical, environmental, or spatial characteristics (Maniram, 2023). In the case of this research, the disadvantage refers to the lack of digital resources that characterises HBUs, leading to their marginalization. This highlights the influence of space and place in distance education in that due to the lack of digital resources, the online space becomes a barrier to efficiency in learning for HBU students (Hlatshwayo, 2020). From a place-based perspective, the 'geographical disadvantage' underscores the inequality in terms of experiences in online learning for students from HBUs vs HWIs. This also ropes in socio-material assemblages in shaping educational experiences particularly for HBUs. Scholars argue that according to the socio-material assemblages theory, a web of material and social realities vary significantly by geographic location and these frame the interactions between students, technology, infrastructure, and place in shaping educational experiences (Fenwick, Edwards, & Sawchuk, 2015; Breines *et al.*, 2019). This then means that for HBUs, educational experiences in online learning environments is highly influenced by the availability – or lack – of material resources and technological infrastructures, which are tied to their geographical location underscoring inequalities that often disadvantage rural students.

The inequalities are apparent not only in relation to spatial factors but, more obviously, in relation to income and wealth disparities (Hasan & Bao, 2020). Lack of financial resources further impedes online education for the majority of Black students (Mdiniso *et al.*, 2022). Mlambo *et al.* (2023) argues that during the pandemic,

students from HBUs encountered added financial difficulties owing to loss of income caused by the retrenchments of their guardians. In addition, costs rose, since the costs of laptops and data had to be added to the costs of university fees. These new expenses further widened the gap between the haves (at HWUs) and the have-nots (at HBUs). The difficulties of having to purchase laptops and data emerged strongly in the responses given by staff and students in the current study.

## **2.4 The Disruption of Residential Education During the COVID-19 Pandemic**

As a result of the pandemic, students were removed from the place- and space-based activities they were accustomed to and had to begin using their own homes and resources to access classes online (Dube, 2020; DHET, 2020). In effect, they experienced not only distance education but distanced education, as distance education was not a neutral phenomenon for them. Instead, it caused a strong sense of being distanced from the means to engage in education successfully.

The literature notes several challenges faced by students studying under conditions of distanced education. Scholars have argued that the challenges associated with inequalities in infrastructure, socio-economic factors and sociocultural factors mostly revolve around the spatial disparities that exist in the communities in which many students live (Mapuva, 2009; Gillett-Swan, 2017; Gamage *et al.*, 2020; Barrot *et al.*, 2021). These difficulties became clear in the current study, as the results show that the students in the HBU under investigation were disproportionately disadvantaged by socio-economic and infrastructural inequalities when they moved from face-to-face to distance education during the pandemic. The disadvantages were mainly caused by spatial factors such as that the institution is in rural areas.

Since the internet is the main means of instruction in online learning, the efficiency of the technology that supports internet access, such as electricity availability, is vital. Challenges surrounding these technologies centre around accessibility, affordability, and the quality and nature of IT devices and services (Czerniewicz *et al.*, 2020; Shabangu & Jita, 2025). These challenges prompted this study to focus on different resources that enable successes in distanced education and the experiences of students from HBUs in adjusting to online environments while being out of reach of campus facilities.

## **2.5 Enablers of Distanced Education in the context of students in HBUs**

### *2.5.1 The accessibility and affordability of digital devices*

The accessibility of devices means the ability to have and use devices, whether laptops, smartphones or tablets, at home in order to access study material (Mphahlele *et al.*, 2021). Without digital devices, online learning is impossible, because online learning depends on the use of digital devices (Dhawan, 2020; Naidoo & Israel, 2021). The literature depicts a digital divide that exists between the Global North and Global South in terms of access to digital devices. The digital divide refers to the gap between individuals with access and skills to use technology and those without such access and skills (Folaye & Ajayi, 2021). In this case, the divide concerns unequal access to digital hardware such as laptops, desktop computers, tablets and cell phones.

In Africa, the scarcity of digital hardware or devices such as the laptops, tablets and smartphones used in higher education is massive compared to European and American universities, where access to devices is abundant (Mpungose, 2020). In countries like the United States and the United Kingdom, the percentage of students having easy access to devices for university is 73% and 78% respectively (Mpungose, 2020). However, in Africa, there is very little access to these devices (Khoza, 2019; Dube, 2020). In Africa, very few countries like Mauritius have over half of the adult population (51%) having access to digital devices. Countries like Morocco, Cabo Verde, Gabon and South Africa, have between 30 and 40% of adult population having access to devices while the rest of the continents' countries lag far behind (Jere and Aruleba, 2022; WorldBank, 2020). In Africa, very few countries like Mauritius have over half of the adult population (51%) having access to digital devices. Countries like Morocco, Cabo Verde, Gabon and South Africa, have between 30 and 40% of adult population having access to devices while the rest of the continents' countries lag far behind (Jere and Aruleba, 2022; WorldBank, 2020). The digital divide trickles down from the global scale to the country scale and eventually to individual communities. In South Africa, Moonasamy and Naidoo (2023), Hlatshwayo (2022) and Azionya and Nhedzi (2022) all noted that South African higher education students lack devices like laptops, tablets and phones, preventing them from fully engaging in online learning. The Department of Communications and Digital Technologies (2024) reported that

while 92.1% of South African households own a mobile phone, only 25.6% of households have access to or own a desktop or laptop.

The digital divide is influenced by several factors, such as income and geographic location. Some studies have synthesised the influence of household income and geographic location, noting that the likelihood of access to digital devices is higher for households with high-income earners and live in specific geographical locations, usually affluent suburbs, than rural, low income households (Bornman, 2012; Naidoo & Israel, 2021; Shabangu & Jita, 2025). Rural households often view buying digital devices such as laptops or tablets a luxury that they cannot prioritise over basic needs like food and healthcare (Mwansa, Ngandu & Mkwambi, 2025). Thus students from rural, low income households tend to rely on on-campus computers to study (Panther *et al*, 2020). During the COVID-19 pandemic, this left many rural students unable to connect and interact with peers and educators (Hendrics & Mutongoza, 2023). For this reason, researchers have pointed out that HBUs have been gravely disadvantaged by the adoption of online learning in the shift to distanced education during the pandemic (Hendrics & Mutongoza, 2023; Aruleba & Jere, 2022).

These factors make it clear why the switch to online learning was especially challenging for students from HBUs (Abdulmajeed, Joyner & McManus, 2020). Some students were able to study from home, with all digital tools at their disposal, while others were unable to do so and did not have access to these resources outside of campus (Monasamy & Naidoo, 2022). Such students ended up falling behind or dropping out . According to Greenland *et al*. (2022), students studying online are 2.5 times more likely to withdraw without a qualification than on-campus students. This research sought to understand the perceptions of students from HBUs in terms of their ability to navigate distanced education while being affected by the factors that cause the digital divide, such as being rural and coming from low-income households with poor access to digital devices. The study further investigated the role of place during the move from the campus and its facilities to distanced education in students' homes, where they had to study with no access to the university devices they had come to rely on.

In the face of the digital divide, many institutions tried to narrow the gap during the COVID-19 pandemic by providing students from underprivileged communities with free laptops (Maphalala & Adigun, 2021; Hanekom, 2020). Hlatshwayo (2022) indicated that the University of Witwatersrand used the services of the South African Post Office (a state corporation) to deliver laptops to students at their homes to access online classes. However, some studies have argued that even though students were provided with these devices, many were sold for personal benefit especially by students from poor communities, thereby defeating the purpose (Mpungose, 2020).

In light of what many researchers have found with regard to lack of access to devices, it was surprising to find that the students in this study all had devices that they could use during the COVID-19 pandemic and continued to use. It is known that cell phone ownership is widespread, yet the participants in the study mostly reported also having laptops. Although the origins of these laptops is not known, it is possible that the institution bought these laptops for students at the start of the pandemic, as was noted in studies by Maphalala and Adigun (2021), Hanekom (2020) and Hlatshwayo (2022).

### *2.5.2 Inconsistent power supply*

The significance of place in online learning is also reflected in unreliable power supplies in developing countries, especially in rural areas. In countries like Nigeria, Ghana and South Africa, power supplies in rural areas are inconsistent (Adeoye, 2020). Studies have noted that nearly 60% of the 3.5 million South African households without electricity access are in remote rural areas where expanding infrastructure remains a challenge, logistically and financially (Zhou, 2025). Access to electricity in South Africa is particularly low in the Eastern Cape and Free State provinces, which are predominantly rural (Zhou, 2025; Mukumba & Chivanga, 2023). For example, in the rural Amathole District Municipality in the Eastern Cape, although the majority of households (84.6%) reported having access to electricity, 15.4% of households had no electricity access (Amathole District Municipality IDP, 2022). The number of households without electricity is high, when comparing to urban provinces like the Western Cape with up to 96, 5% access to electricity (Statistics SA, 2023)

In South Africa, power cuts, often referred to as load shedding, were introduced in 2007, meaning that, by the time the COVID-19 pandemic lockdowns were introduced,

South Africa was already facing the realities of regular power cuts (Hlatshwayo, 2022). Load shedding is a strategy used by the country's primary electricity transmission and distribution service provider, Eskom Holdings SOC (ESKOM), in which the company switches off parts of the electricity network in a planned and controlled manner in order to stabilise the power grid when it is overloaded (ESKOM, 2002; SA government, 2018). Thus Hlatshwayo (2022) stated that during the pandemic, the failure by Eskom to deliver electricity contributed to the failures of online learning. A study by Gumede and Badriparsad (2021) indicated that students complained of not being able to attend online lectures synchronously when they took place during load shedding; therefore they could not ask questions, being compelled to watch recorded versions of lectures afterwards. Studies have linked poor internet quality and load shedding, since poor internet quality often occurs after periods of load shedding, further compromising the quality of online learning (Hlatshwayo, 2019; Zalat *et al.*, 2021; Pokhrel & Chhetri, 2021; Pungwa & Moonasamy, 2024).

The literature shows that load shedding can lead to mental health challenges, unequally affecting HBU students engaged in online learning (Thembane, 2024; Yende, 2024). Rural students can rarely afford alternative power sources (solar power, generators, or UPS devices), which widens the gap between rural students from poorer backgrounds and their more affluent urban peers (CambriLearn, 2024, Khoza & Mukonza, 2025; CIPESA, 2023).

Besides load shedding, the unaffordable price of electricity in South Africa and the complete lack of electricity provision in some rural areas show that electricity, which is essential in online learning, is largely inaccessible for many students in these areas (Marchetti-Mercer *et al.*, 2024). This undermines attempts to successfully run online learning programmes in such areas. The results of this research revealed that socio-economic and spatial factors play a major role in the nexus of power supply and online learning. The findings show that most students from rural areas had no back-up devices such as power banks or generators during the COVID-19 pandemic; hence when there was load shedding, they simply could not study.

### 2.5.3 Access and affordability of quality internet

Access is not only limited to devices, but applies to the quality of internet coverage available to students. Global trends show that in the Global North, in countries like China and Switzerland, 40 people per 100 were connected to fixed broadband subscriptions by 2017 (World Bank, 2017). Other Global North countries such as the United Kingdom and the United States had 92% and 89% of their population connected to good quality bandwidth respectively (International Telecommunication Union, 2017). In Africa however, studies conducted in Nigeria, Tanzania and Zambia indicated that by 2017–2019, these countries still had poor access to the internet, especially in rural areas (Mukosa & Mweemba, 2019; Mtebe & Raphael, 2018). Lembani (2019) indicated that less than a third of the population had access to good internet, which is still low in comparison to the Global North. Again, these statistics show a digital divide, where Global North countries have access to better quality internet network than their Global South counterparts.

In South Africa, StatsSA (2016) reported that only 9.5% of the South African population had internet access at home, while in 2017, the World Bank (2017) reported that fewer than three people out of 100 were connected to fixed broadband subscriptions. Poor access to the internet was attributed to the state having failed to make meaningful investments in ICT infrastructure before the emergence of the COVID-19 pandemic (Zhou *et al.*, 2020). In the Eastern Cape, the Eastern Cape Socio-economic Consultative Council indicated that in 2025, only 10.4% of households had internet at home (Eastern Cape Socio-economic Consultative Council, 2025). This is contrary to developed countries where the construction of IT infrastructure had already taken place in the three decades before the pandemic (Zhou *et al.*, 2020).

In South Africa, the challenges of internet quality trickle down into communities, where the divide is stark. Many scholars argue that online learning discriminates against underprivileged students, whereas students from urban areas benefit from their easier access to better quality internet (Mishra *et al.*, 2020; Muthuprasad, 2020). Studies further support this by arguing that the COVID-19 shift to distanced education, although prompted by the noble goal of maintaining quality education for all, was exclusive in its nature, excluding many learners in underserved communities (Dube,

2020). The World Bank (2020) also noted that the shift to online learning at scale is typically beneficial to students who are already disproportionately advantaged (i.e., rich over poor, urban over rural, high-performing over low-performing, students in highly educated families over students in less well-educated families). This was reflected in this study, as participants indicated that they had poor or no access to the internet at home and were not able to study at home. Academics also indicated that disadvantaged students' relatively poor performance in online learning has had a lot to do with poor internet access in their homes rather than lack of hard work. Generally, students from disadvantaged backgrounds need to be on campus where they have access to campus internet services in order to study successfully.

For HBU students, poor access to the internet at home is exacerbated by high data costs, which have become unattainable for low-income households in Africa (Gumede & Badriparsad, 2022). Several studies in African universities have indicated that high data costs and internet infrastructure costs such as Wi-Fi routers prevent students from successfully studying from home. For example, Kaisara and Bwalya (2021) state that in Namibia, students experienced challenges with the cost of data, preventing them from accessing university e-learning platforms and causing some students to abandon attempts to use it. Similarly, in Ghana, Aboagye, Yawson and Appiah (2020) identified the high cost of data as the most important challenge facing students during the COVID-19 pandemic. In South Africa, the astronomical price of data is similarly prohibitive (Gumede & Badriparsad, 2021; Muthuprasad *et al.*, 2020). In 2019, the average price of one gigabyte (GB) of data in South Africa was R106.20, compared to R3.84 per GB on average in India. Out of 230 countries, South Africa was ranked 143<sup>rd</sup> among countries with high average prices of data (Kesler, 2019).

The nexus of studying at an HBU and the high cost of data contributes to the digital divide, in that unattainable data costs take on great significance in rural families, whose main income is informal jobs or government grants. Students from these families could not afford to purchase data to support their studies during the pandemic because many of their parents lost their jobs as a consequence of the lockdown (Makumbe, 2020). Online learning thus became extremely difficult for such students, since incurring data costs while trying to access a system that is unresponsive naturally created unwillingness to pursue studying (Kaisara & Bwalya, 2020). This

highlights the significance of socio-material assemblage in HBUs. In a bid to narrow the gap caused by unattainable data costs, some mobile networks dropped data costs during the lockdown, since data traffic is said to have surged between 35% and 60%, as reported by almost all local networks (Mhlanga & Moloi, 2020). Furthermore, some studies noted that certain universities negotiated with network providers to secure data deals, which were distributed to all students and lecturers and in a bid to foster equitable access to education (Mahlaba, 2020).

Overall, these arguments on access to quality internet connections highlight the fact that internet quality is influenced by spatial factors and has more to do with the geographical location of students and staff than with other factors. This is evidenced by the fact that although data expenses are prohibitive, even those who can afford them can do little if internet coverage of an area is poor. This observation shows the significance of place in distanced education, since place affects access to consistent internet availability. In choosing to investigate the experiences of HBU students from rural backgrounds, this study underscores the significance of place in educational attainment.

## **2.6 Academics' Adaptation Strategies to Enhance Online Teaching**

Although most universities in less developed countries were plunged into online learning without proper preparation, academics devised strategies to manage both themselves and their students in online teaching and learning. Teaching strategies varied according teaching environments (i.e., whether in the Global North or South), and preferences in academic instruction (Mthiyane & Jarvis, 2024; Adu *et al.*, 2024). Minimal research has been carried out to describe strategies that university staff employed to overcome challenges they faced in the use of technologies in online teaching, particularly in the South African context (Alam, 2020; Mpungose 2020).

### ***2.6.1 Sustaining active learner engagement and navigating connection disruption***

One of the most prevalent challenges faced by academics during the COVID-19 pandemic was lack of good internet connectivity, which hindered their digital teaching methods (Mututwa & Matsilelee, 2024; Aruleba & Jere, 2022). This has always been a challenge in developing countries and is mentioned in several studies conducted in

South Africa (Khoza, 2019; Dube, 2020; Mpungose, 2021). Some academics indicated that they overcame this challenge by limiting the duration of their online classes (Basch *et al.*, 2025). This allowed their students, even those with poor internet, to download and access the lessons, since longer online lessons would take more time to download (Jones & Shammar, 2020). Moreover, designing shorter and more interactive classes using tools like live chat function, pop quizzes, virtual whiteboards, polls, reflections, etc, helped to engage students with poor internet connectivity (Adnan, 2020). Limiting the duration of classes and splitting big tasks into multiple smaller tasks helped students remain attentive and focused during online classes (Bao, 2020). This strategy helped academics to improve student learning abilities in online learning. Hybrid learning using a blend of synchronous and asynchronous tools was also effective for dealing with poor connections (Govender & Khoza, 2017). The inclusion of asynchronous methods was helpful, giving a sense of inclusion to students with poor internet who could not join live virtual conference or classes (Rahman *et al.*, 2022).

Students alluded to the fact that they felt isolated in online classes (Smith & Diaz, 2004) and thus found it difficult to engage. The literature shows that more student and teacher discussions result in higher interactivity (Townsend *et al.*, 2002). Discussions provide immediate feedback and increase students' confidence in the online setting (Magalhães *et al.*, 2020). Many academics used case studies, asking questions related to specific cases, which also boosted student involvement (Mahmood, 2020). Incorporating multiple-choice questions during classes also increased students' interest and attentiveness (Shetty *et al.*, 2020).

### *2.6.2 Ensuring authentic assessment methods*

Maintaining good quality standards is a challenge in the online space (Mcbrien & Jones, 2009). As noted in Section 2.7.3, student cheating eroded the quality and authenticity of online learning (Shetty *et al.*, 2020). Also, regular formative assessments on smaller units of courses with live discussions and question-and-answer sessions, rather than major tests, helped curb cheating (Hsiao, 2012). Self-assessments and peer-assessment delivered helpful, personalised feedback while not adversely affecting the lecturer's workload (Mcbrien & Jones, 2009).

Peer reviews or assessments both curbed cheating and reduced lecturers' workloads (Skliarova *et al.*, 2022). For instance, lecturers would have students' present portions of a field assignment for critique by peers, with the lecturer providing students with a rubric to guide their review (Mahmood, 2020). Peer assessments also provided multiple learning benefits to students (Yang & Tsai, 2010). They fostered a sense of community and gave students a chance to learn through analysing and critiquing the work of others (Handrianto *et al.*, 2021). Peer assessment also worked well for speaking assignments. In fact, peer assessments helped to maintain interpersonal relationships with lecturers and friends during the pandemic, strengthening these relations (Simamora, 2020). Besides peer assessments, to reduce workloads, lecturers made optimum use of opportunities where they addressed the entire class, thus reducing the time spent giving the same feedback to multiple students (Rahman *et al.*, 2022).

### 2.6.3 Technical support

Technical support was a crucial part of helping academics transition from face-to-face to online teaching (Abdioglu *et al.*, 2021). Universities that invested in training academics before the rollout of web-based approaches greatly assisted their staff (Wu *et al.*, 2019). Such training as 'Instructional Design and Pedagogy' training where lectures are trained in creating independent modules, discussion boards, how to record lectures, designing interactive polls, collaborative wikis, and peer-review activities (Silempa *et al.*, 2025). Training lecturers provided them with the necessary skills to improve their technology expertise (Wu *et al.*, 2019). Besides, Kang *et al.* (2021) argued that the training they had already undergone moulded their understanding of the online teaching approach and allowed them to exploit it more creatively. Their initial training acted as an online orientation or tour, helping lecturers navigate online platforms (Lin & Dai, 2021). Kearns (2012) noted that training should be slow and gradual to get everyone on board, so as to cater for older staff who may not be as technologically savvy as younger staff. The scholar further notes that lecturers should be given ample time to experiment with new technologies and teaching methods so as to familiarise themselves with them. Where these conditions are not possible, such as during the abrupt transition to online learning occasion by

the COVID-19 pandemic, lecturers are less likely to be adept at using of various platforms, which would exacerbate the difficulties for students and staff alike.

## **2.7 Adjusting to Distanced Education**

With the sudden transition to studying from a distance, students were affected in ways other than in the physical sense. The sudden shift from face-to-face to online learning was perceived as unnatural (Calamlam *et al.*, 2020). It created unintentional learner resistance, a natural reaction to the sudden change from traditional methods of learning to which they had become accustomed over many years (Ma, 2024). The study was interested in the implications of this removal of place and space-bound activities. The researcher wanted to understand how the sudden change affected students who had enrolled as residential students, intending to use on-campus facilities for support, who suddenly found themselves forcibly switched to distanced education, with none of the facilities they needed to succeed.

Most of the literature shows that the sudden shift significantly impacted students psychologically. According to Li *et al.* (2021), the onset of the pandemic marked an increase in mental health challenges such as depression and anxiety among university students. Some anxiety stemmed from having to use technology as the sole means of learning, which was out of some students' comfort zone (Mahmood, 2020). Some students indicated that they felt anxious because of difficulties in peer interaction in the online setting, particularly in presentations (Orlando & Attard, 2015). This is because HEIs are meant to nurture a culture of interconnectedness and socialising among staff and students; removing this element naturally brought about feelings of isolation and anxiety (Hendrics & Mutongoza, 2023; Hehir *et al.*, 2022; Calbi *et al.*, 2021; Poppe *et al.*, 2022). The challenge of disconnectedness in distanced education underscores the importance of place in distanced education. It shows that place (i.e., campus) is not used only for its facilities but as a location in which relationships are formed, which offers a sense of psychosocial support. On the other hand, some students reported that studying independently helped them gain new skills such as time management, self-reliance, and independence (Mettilmeier *et al.*, 2019).

Some studies argue that in adjusting to distanced education, staff and students resorted to unconventional ways of instructing or interacting, using platforms such as

social media (Lin & Dai, 2022; Bozkurt, 2023; Clare Madge *et al.*, 2019; Mphuthi, Ngoveni & Mphahlele, 2025; Makoe, 2024). Prior to COVID-19, the use of social media, though purported to offer opportunities for teaching and learning, was largely informal (Mnkandla & Minnaar, 2017; Muhirwa, 2009). However social media became an important tool and strategy during COVID-19. Research shows a significant positive relationship between students' online learning and their ability to connect socially through social media, on which they were able to communicate and interact with instructors and peers (Jogezai *et al.*, 2021; Lin & Dai, 2022). The value of social media was especially pronounced during this period, since students easily become isolated and experience loneliness when there are no other options to maintain interpersonal relationships, leading to a perceived disconnection from the learning community (Bowers & Kumar, 2015). This became more pronounced in the COVID-19 period since students could not physically associate beyond the online classes owing to social distancing (Rahman *et al.*, 2022).

Students' feelings of isolation probably contributed to high rates of dropout from online courses, while social media may well have lowered the incidence of it. Particularly in Africa, where dropout rates are already high in online learning, social media plays a valuable role by increasing engagement between staff and students in poor-quality network communities (Bozkurt, 2023; Madge *et al.*, 2019; Makgahlela *et al.*, 2021; Bowers & Kumar, 2015; Mavuru & Ramaila, 2022). For example, in South Africa, an estimated 750,000 learners dropped out of the schooling system during the pandemic (Kaisara *et al.*, 2024). Students have also indicated that using social media to communicate with their peers and educators assisted them with help-seeking and peer support, enabling reciprocal learning and interaction (Lin & Dai, 2022). Some studies note that social media platforms are favoured by students because of their flexibility and lack of formality, making them easier to use than official online platforms used by HEIs like emails, Blackboard or Moodle (Mpungose, 2020; Manca, 2020).

In South Africa, the social media tools used in online learning were mostly WhatsApp and Facebook (Madge *et al.*, 2019). Madge *et al.* (2019) state that where socio-economic gaps exist, social media provides practical support to students from poorer backgrounds who have more limited opportunities to engage with people from other backgrounds and places. Social media also helps to bridge gaps left by formal online

learning platforms like Vuma, used by the University of Cape Town, and other online platforms used during COVID-19, like Blackboard and Moodle (Makurane, 2021; Kekana & Mogoboya, 2021). Scholars state that these formal online platforms lack a social aspect and are not seen as user friendly. Social media offer a friendlier, more informal platform that supports socialisation and leads to better engagement among students in distanced education (Sokhulu, 2020).

However, scholars have highlighted the disadvantages of social media use in online education. For example, Madge *et al.* (2019) stated that some students found WhatsApp groups too informal and lacking an academic focus. Some students pointed out that using social media for academic purposes was distracting and interfered with their attentiveness during class, as they felt the urge to check messages and answer calls while using applications like WhatsApp for academic purposes (Verma & Godara, 2020; Koessmeier & Büttner, 2021). This was reflected in this study where students pointed out that using social media for academic purposes was distractive and interfered with their attentiveness during the class. This is a particularly important point for HBU students who were already engulfed in multiple technical challenges in online environments hence, they needed extra effort focus in order to achieve their academic goals. Using social media as a tool to adjust to distanced education may appear to be a deterrent to their progress (Makurare, 2021).

Other sources indicated that the success of social media use in academic settings could be related to age (Avila *et al.*, 2020). Older students who are not experienced with or exposed to technological self-efficacy found it difficult to incorporate social media as a learning tool, while the millennials and Generation Z learners experienced no such difficulties (Harvey & Parahoo, 2017; Cutler, 2014; Makurare, 2021). It is also worth noting that high exposure to social media has been linked to mental health challenges, especially anxiety and depression (Gao *et al.*, 2020).

## **2.8 Strategies Students Devised to Counter Challenges of Distanced Education**

Amidst the challenges that HBU students faced and continue to face in online learning, significant amount of literature has reviewed strategies that students have used to counter these challenges (Wijekumar, Ferguson, & Wagoner, 2006; Calamlam *et al.*, 2021; Liu *et al.*, 2021).

### 2.8.1 *Planning and time management*

Prior to COVID-19, students in resident institutions had a 'structured' way of conducting their studies where they followed timetables and only focusing on themselves and studying, enabled them to keep abreast with their studies (Yusuff, 2018). Literature has indicated that in an online environments planning is an important aspect to achieving their academic goals, and working diligently to attain those goals helps students to achieve their academic goals (Hlatshwayo, 2019; Zalat *et al.*, 2021; Maharaj, 2023). Planning also became extremely important in a 'studying from home' environment during COVID-19 because planning to study had to also take into consideration of what other family members are doing in order to successfully set aside time to study (Keser Aschenberger *et al.*, 2022, Brachtl *et al.*, 2023). Thus, one has to plan carefully to ensure that they have a study environment that is conducive for them whilst not infringing on other family members' freedoms. Ideally, such an environment may be possible for global North students who are able to find designated spaces for studying in their homes (Mahlaba, 2020; Dube, 2020). However Global South students from HBUs who reside in rural areas, informal settlements and townships are largely affected by lack of conducive study spaces in their homes to study (Mavuru & Ramaila, 2022). This was reflected in this study where students in this case study complained of lack of study space, more so for students from rural than urban areas who indicated that they lack space to study when they are at home. This suggests the inequalities that exist in distance learning between urban and rural areas likely prompt HBU students from the rural areas, informal settlements or townships to prefer place-based learning where they are able get designated space to study.

Besides planning for their study space, in South Africa, where there are power cuts or load shedding, part of planning ahead meant checking the load shedding schedules ahead of time in order to plan accordingly when to study (Mahlaba, 2020). The students from the HBU in this research, concurred with these sentiments, indicating that they needed to check load shedding schedules against their class schedules in order to know if they will have the class synchronically or not. This also suggests that this could be another reason the HBU students preferred place-based learning because they would be able to attend all oral classes in person, even without electricity. Unless they are practical's that needed electricity.

Planning goes hand in hand with time management. Biwer *et al.*, (2021) mentioned that working diligently with a schedule and knowing ones' worst and best times to study is a strategy that some students used to maximize learning outcomes during their studying from home. Other students indicated that using a planner, following a daily schedule, making to-do lists, keeping a time-use diary, writing reminder notes, setting personal deadlines, reducing wasted time was also beneficial in keeping themselves disciplined in their online studies (Wolters & Brady, 2021). For HBU students in particular, time management when studying from home meant that these students had to manage their time between studying and household chores, since in rural areas there are intensive home and agricultural chores that are essential for the household's survival (Gyamfi, 2025).

### 2.8.2 Peer support

Peer support is indicated as one strategy that helped students share ideas and opinions, and exchange learning strategies, to master the subject content and to gain a deeper level of understanding and knowledge (Kuo *et al.*, 2013; Simamora, 2020). By interacting with fellow students, students exchanged ideas with and got feedback from each other (Simamora, 2020). To add on, peer support, has been said to enhance student interest, motivation and interaction with their lecturers (Madge *et al.*, 2019). This is through curbing the disconnectedness from people some students may have felt due to ineffective communication, not seeing professors, the loss of interactions with classmates and other students (Händel *et al.*, 2020). The student-initiated efforts to solicit help from peers acted as a stabiliser of emotional, psychological and general wellbeing in the 'self-regulated learning' journey (Mhandu *et al.*, 2021). This restrained the mental effects of lack of physical support from the peer group and other resources, isolation, fear and anxiety associated with the pandemic (Kaup *et al.*, 2020). Since physical meetings were prohibited, students tried to meet their social needs through social media (William, 2020). However, some research has indicated some students felt in control of their studies when they independently try to solve problems and are not necessarily heavy on engaging with their peers though they acknowledge the benefits from peer discussions (Rasheed, Kamsin, & Abdu, 2020).

## 2.9 Challenges Experienced by Academics in Distanced Education

Distanced education did not impact students only, but lecturers and academics too, who had to switch from face-to-face to online forms of instruction during the COVID-19 pandemic. When online education first emerged, it was hoped that teaching with technology would be more efficient and effective than conventional methods (Simamora *et al.*, 2020). However, in reality, the effects and efficacy of online instruction and the ability to successfully teach digitally was questionable (Alangari, 2022). This sudden transformation of environments designed for conventional teaching to virtual teaching affected academics' attitudes to the pedagogy (Verma & Godara, 2020). Academics are the most critical intellectual resource in the higher education field across the world (Vu *et al.*, 2020). It was therefore important to include academics' viewpoints and experiences of online instruction during the COVID-19 pandemic in this study. The inclusion of academics' perceptions helped balance the research, since students and academics were likely to have experienced the sudden switch to online learning in slightly different ways. Together, their insights would give a well-rounded picture of the effects of shifting from face-to-face to online education and back to blended approaches post-pandemic (Alangari, 2022).

### 2.9.1 *The digital quality of academic content*

Maintaining good academic standards was a challenge during the pandemic, according to academics cited in studies by Miner-Romanoff *et al.* (2019) and Amoah & Le Roux (2024). Academics indicated that while learning tools such as virtual labs and video calls were essential in online teaching, they could not provide authentic learning experiences (Miner-Romanoff *et al.*, 2019; Stieben *et al.*, 2021). Several scholars report that academics found virtual labs and virtual internships detrimental to students' career development because they could not replicate real-world experiences. Many academics in the STEM field felt that many concepts could not be imparted by online teaching alone, even with the use of online apps for simulation-based training (Kaup *et al.*, 2020).

A number of studies note that simulation facilities are expensive to install and run, as the equipment itself and its maintenance costs are usually high (Phillips, 2014; Sekandarpour *et al.*, 2019; Van Wyk *et al.*, 2023). Hence STEM academics in HBUs

were unlikely to have offered these simulations, because HBUs are underfunded and lack the necessary equipment to produce good quality content online (Van Wyk *et al.*, 2023; Mdiya, 2020; Purnell, 2022; Frola *et al.*, 2024). Much of the literature indicates that the move to online learning found HBUs under-resourced and under-prepared for most technologies needed in distance education, unlike their HWI counterparts, which were able to afford such resources (Hendrics & Mutongoza, 2023; Mlambo *et al.*, 2023). Again, this reflects the digital divide, which affected not only students but academics as well.

Another important aspect of the challenges surrounding academic staffs' work output and digital quality assurance was the time, effort and knowledge needed for content creation (Siemens & Downes, 2009). Some academics turned to web-based scientific materials such as YouTube and digital libraries, and lessons available via these platforms. However, in most cases, the objectives of the courses were not met, and sometimes content on these platforms was incompatible with their objectives (Dlamini, 2019). Therefore, it was essential to produce special content. This required knowledge of educational material and pedagogical knowledge of teaching strategies that could be used to deliver attractive and meaningful content to learners of different types (Islam *et al.*, 2015). Among the most prominent sources of digital content were internal sources, with specialised teams in some educational institutions developing distance education courses. The second source of digital content were external sources, where educational institutions contracted educational organisations, experts and publishers to produce and develop distance education courses (Alangari, 2021). However, in developing countries such as South Africa, previously disadvantaged universities (HBUs) did not have the budget or time to hire experts to develop content for online courses during the pandemic (Dube, 2020).

Assessment was another challenge to online teaching during this time. Some academics indicated that online learning made them feel unable to assess their students properly (Mpungose, 2020; Rahman *et al.*, 2022). Academics were unable to guarantee that their online assessments accurately reflected their students' authentic abilities, particularly in HBUs where many factors affected students' learning experiences, such as poor digital resources and infrastructure that hindered

successful studying (Ahmed *et al.*, 2021; Tsoka & Kriek, 2023; Gunter, 2025; Azionya & Nhedzi, 2021).

Many academics complained of the increased workload of online classes (Handrianto *et al.*, 2021). For example, the amount of time and effort involved in providing meaningful feedback to online students was said to be massive. Academics reported being overwhelmed by the number of video assignments required per assessment (Dhawan, 2020; Syuraini *et al.*, 2018). Allen and Seaman (2015) also found that the methods used to assess students in online learning are complex and time consuming. These difficulties disproportionately affected academics from HBUs, since HBU students have few digital resources and poor-quality internet networks, causing them to miss classes or deadlines (Netshakhuma, 2022; Hanifi, 2023). Academics in HBUs then have to follow up with each student offering catch-up classes or tests and assignments, which decreases their efficiency and increases their workload (Graham, 2019). All the challenges of producing quality digital content reflect the unpreparedness of HBU institutions to shift to distanced education and, in retrospect reflect the need for academics at these institutions to teach or work in an established place (campus) rather than online, in order to ensure successful output.

### 2.9.2 *Digital literacy*

Online learning even before the pandemic was imposed on lecturers as much as it was on students, with many lecturers finding themselves excluded from planning processes and receiving inadequate training by their institutions (Amory, 2010; Cuéllar *et al.*, 2011; Bates, 2018). This was the case in South Africa when online teaching was first introduced. Imposing this type of teaching and learning assumed that lecturers, like students, were digitally literate and able to adapt easily to the use of devices and online education, but this was not the case (Khoza & Biyela, 2019). In universities in the Global South, online learning was less widely practised before the COVID-19 pandemic than in universities in the Global North (Mpungose, 2020). Shetty *et al.* (2020) note that the majority of academics (79%) lost interest in teaching online classes because of technological glitches that they could not resolve. Other studies support this finding, reporting that academic staff who did not implement online

teaching pre-pandemic showed resistance to continuing with online teaching post COVID-19 (Lloyd, McCoy & Byrne, 2012, Mahlaba & Mentz, 2023).

For some older academics, using IT applications to teach was a foreign concept, yet all academics were expected to switch to the use of technological methodologies equally quickly (Simamora *et al.*, 2020). The pressure to rapidly acquire new skills caused negative attitudes, frustration and anxiety for many, and some students became unwilling to participate in online teaching offered by less adept academics, especially the older ones (Khoza, 2019).

Underlying these frustrations was a lack of proper training well before the pandemic in teaching online and using a variety of different online platforms. It has been observed that an online learning curriculum has to be specially tailored for online instruction, which requires training of online educators (Black *et al.*, 2021). However, under conditions caused by the pandemic, online classes were pioneered with little training for academics, and their curricula were never tailored for online purposes (Skliarova *et al.*, 2022). The lack of tailoring in online content was evident in HBUs. This made it difficult for some academics to adjust and understand online teaching as they continued to teach online classes with content suited to face-to-face instruction, and thus compromised the quality of education offered in distanced education (Read, 2020).

### 2.9.3 Academic integrity

Academic integrity is the expectation or commitment that academics and students will act with honesty, trust, fairness, respect and responsibility (International Center for Academic Integrity, 2021). The violation of academic integrity, often referred to as academic dishonesty or cheating, includes behaviours such as the use of unauthorised materials, falsification (misrepresenting oneself), and plagiarism (claiming another's work as one's own) (International Certifications for Business (ICB), 2023). Many academics indicate that the violation of academic integrity is a major challenge in distanced education (Mahabeer, 2019; Verhoef & Coetser, 2021; Zhao *et al.*, 2022; Mlies *et al.*, 2022; Lin & Guo, 2025). At the abrupt inception of distanced education, many academics found it challenging to conduct online learning without proper guidelines on maintaining academic integrity in online assignments and

assessments and dealing with wrongdoing in the online classroom setup (Ahluwalia, 2020). According to Takalani (2008), 95% of students admit to some form of cheating in online learning in higher education. In HBUs, violations of academic integrity are often embedded in systemic resource constraints and the specific socio-economic contexts of their student populations (Burton, 2023). This is in that, rather than seeing integrity violations strictly through the lens of individual moral failure, for HBU institutions with very poor resources, where a culture of integrity is not actively built through dialogue, training, and development of resources that support ethical practices, unfortunately academic violations may result. For example, institutions with constrained or limited operational budgets often lack comprehensive academic writing centres, robust training on academic integrity, or widespread research support frameworks to cultivate environments where academic integrity is seen not only as a mere set of rules to adhere to but as an integral part of the educational experience that prepares the students for ethical conduct. This leaves students underprepared for the rigorous demands of higher education, subjecting students to misconduct (Burton, 2023; Davis, 2025).

As noted earlier in this study, HBU academic staff and students suffer from their institutions lagging behind in technological or digital advancements (Rahman *et al.*, 2022; Mpungose, 2020; Laher *et al.*, 2021; Mdiya, 2020). Scholars have argued that this caused academics to struggle with unreliable internet connectivity and a lack of advanced features in their Learning Management Systems (LMS) to effectively monitor their students' assessments (Hilton *et al.*, 2024; Alessio *et al.*, 2017; Han *et al.*, 2023; Novick *et al.*, 2022). Hence for HBUs, the removal from campus meant that academics battled with academic dishonesty more than their HWIs did, since HWI academics in better-resourced settings had better access to student monitoring equipment (Makhene *et al.*, 2025).

In an effort to prevent fraud in assessments, academics applied several measures, including limiting the number of students in a virtual room, a mandatory camera, and the identification of all students by an identity card. Many used strategies like requiring each student to use a second camera focusing on their workspace, while others used specialised software such as Safe Exam Browser to curb academic dishonesty (Skliarova *et al.*, 2022). However, some scholars have argued that high-quality

monitoring software and biometric authentication can be very expensive and thus prohibitive for HBU institutions with smaller budgets (Holden, 2021).

Some studies have linked HBUs and academic dishonesty, showing that HBU students from low-income households rely on campus-based facilities like Wi-Fi and computer labs (Burton, 2023). When these students were abruptly forced into distanced education, where they studied from homes with unsuitable devices and no high-speed internet, many engaged in panic-driven academic dishonesty (Britannica, 2023; Yin, Lai & Guo, 2025).

## **2.10 Conclusion**

The findings of other researchers on the topic of online learning reveals that there are stark differences in the challenges experienced by students and lectures in distance education in the Global North and South. According to the literature reviewed in this study, the Global North was ahead in both infrastructure and the structures required to support online learning by the time COVID-19 pandemic began, which made their transition from face-to-face to online learning easier (Zhou *et al.*, 2020; Mishra *et al.*, 2020; Mpungose). The Global South, for the most part, started online learning only during the pandemic. Locally, these differences were exacerbated by differences between conditions in rural and urban settings. The struggles of rural students in managing the abrupt ejection from familiar space and place and having to engage in online learning rather than campus-based learning prompted the researcher to investigate the realities of online learning for vulnerable communities (students at HBUs) so as address Sustainable Development Goal 4.3, which speaks of equal educational access for all (United Nations, 2018). A study of this nature could help address the difficulties and subsequently increase gross academic enrolment in Africa (UNESCO, 2017).

For this reason, the literature selected for review mostly concerned students and academic staff from less developed countries such as South Africa. There were far more studies on the switch to online learning in developed countries than in developing countries, a state of imbalance that this study hopes to address. By revealing the perceptions, experience and preference of students and academics at an HBU, the study could assist policy makers or any other stakeholders intending to develop online

learning in these vulnerable communities. This chapter has provided an overview of the existing literature to provide context on distanced education in HBUs during and after the COVID-19 pandemic.

The following chapter describes the methodology used to collect and analyse data for this research.

## **CHAPTER 3: METHODOLOGY**

### **3.1 Introduction**

The previous chapter reviewed literature in terms of distanced education in the HBU context. The research recognises the significance of mentioning that the distanced education was temporary because COVID-19 restrictions necessitated that all universities abruptly teach/learn online for a certain period in time. The HBU being investigated in this study has since reverted to face to face and blended instruction post pandemic restrictions being relaxed (UFH, 2024).

This chapter outlines the methodology used to collect and analyse data for this research. This study employed mixed method research, specifically, a qualitative-dominant mixed methods approach. The qualitative-dominant mixed methods approach was used in alignment with the study's objectives which were i) to explore the perceptions and experiences of the HBU students in Alice, in terms of their tertiary education through determining the significance of the removal of place and space bound learning and activities as a result of the COVID-19 pandemic (through distance education), and the influence of post-pandemic educational approaches (the resumption of traditional and/or adoption of blended approaches) ii) to explore the perceptions and experiences of this HBU's academics in terms of their lecturing and other work outputs, through determining the significance of the removal of place and space bound teaching and other work activities during the COVID-19 pandemic, and the influence of post-pandemic educational approaches iii) to assess the adaptation strategies devised by academics in this study's HBU , both as a contingency during the COVID-19 pandemic and as an implemented measure post pandemic, to maximize learning, and teaching success and lastly iv) to assess the role of varying spatial and socio-economic backgrounds and factors on the perceptions and experiences of the HBU students and academics both during and post-COVID-19. This chapter details and outlines methods and designs that were used to collect and analyse data in this study.

### **3.1 Research Approach**

As already mentioned, the study employed a qualitative-dominant mixed methods approach, where qualitative methods, as a primary focus, were used alongside quantitative methods, as a supplement, to collect and analyse data (Gamage, 2025; Hesse-Biber, 2022). The qualitative-dominant approach is sometimes referred to as qualitatively-oriented mixed methods (QOMM) or qualitatively-driven mixed methods research (QDMM) (Toledo & Shannon-Baker, 2023; Poth, 2025). Mixed methods approaches are used in research for a number of reasons. For example, they allow researchers to apply a diversity of methods, integrating inductive and deductive thinking and offsetting limitations of exclusively using quantitative or qualitative designs through a complementary approach (Banawa, 2025). This study used both inductive and deductive thinking to understand the effect of staff and students at an HBU in Alice being suddenly detached from place and place-bound learning and teaching. The inductive and deductive thinking unpacked how their socio-economic backgrounds affected, and still impacts their experience in distanced formats of education.

This study chose to use a qualitative-dominant mixed methods approach and not just a mixed methods approach because the study's primary purpose was to understand the implications of the COVID-19 pandemic on students and academics of an HBU in Alice, in terms of their perceptions and post pandemic educational preferences in distanced education. This research used both qualitative and quantitative data. The demographic data (which was mostly quantitative) of both students and staff of this HBU, together with the qualitative data that detailed the participants' experiences, to give a more comprehensive understanding of their experiences in distanced education. Combining the two types of data brought an understanding of how the participants' background affected their experience and perception of distanced education. Other studies have also argued that, combining the two data types not only makes the research vigorous by making quantitative results more relatable and understandable but it also makes small-sample qualitative findings better applicable on a broader scale (Hands, 2022). This study being a qualitative dominant study with small sample size, will offer insights applicable to studies on academic staff and students with similar backgrounds.

Studies have indicated that a qualitative-dominant mixed methods approach assigns greater emphasis and prominence on qualitative findings, usually to explore complex issues that are deeply qualitative and then incorporates quantitative data to contextualise, supplement or quantify some of the qualitative data, providing a richer, more comprehensive perspective than using one method alone (George, 2021; Saraswati & Devi, 2023; Delgado, 2025). Hence, this study incorporated both types of data because a qualitative study on its own would not have captured the breadth of this study or given it much context of the extent of the impact of shifting students and academic staff of this HBU into distanced education. Thus, quantitative data was used to supplement the qualitative data to surface breadth and context of the study.

On the other hand, in as much as the study used both quantitative and qualitative data, which may appear as a mixed methods approach, labelling it as such could not have given the research the specific way in which both types of data were applied in this research. Labelling the research as simply a mixed methods study would not have necessarily highlighted that this study prioritised qualitative data in its data collection and analysis (Kajamaa, Mattick, & de la Croix, 2020). It is for this reason that the study adopted a qualitative-dominant approach, because it was well-suited for this study as the quantitative data was only supplementary and with limited application in the study (George, 2021; Saraswati & Devi, 2023; Delgado, 2025).

This qualitative-dominant approach was applied in many ways in this research. The research used qualitative data that detailed the participants' lived experiences in being shifted to distanced education while supplementing it with the demographic data of the participants, which was mostly quantitative, to give breadth and context in terms of the influence of the participants' background in their experience in distanced education.

Although using both types of data contextualises the research, scholars have argued that qualitative-dominant mixed methods thrive in uncovering nuanced, human-centred insights (Morse & Cheek, 2014; Banawa, 2025; Poth, 2025). This study sought centre itself around academic staff and students' lived experiences when they were abruptly shifted into distanced education. Some scholars further argued that, by combining both qualitative and quantitative data, research gains far more than just numbers or stories in isolation, but a nuanced and deeper comprehension that connects what is happening with 'why' or 'how' it's happening (Banawa, 2025,

Aramidea, Jacobb & Pillay, 2023). This research centred its core on their lived experiences of students and academic staff to understand the 'why' behind their preferences in educational instruction post pandemic or 'what' factors contributed to their experiences and 'how' the shift affected their experiences, hence the study needed to be highly qualitative to surface that.

In this qualitative-dominant approach, using quantitative data gave context to the research by providing depth and magnitude of the qualitative data making the findings more comprehensive (Ahmed, Pereira & Jane, 2024). The context of the study was highlighted using students and academics' biographic data, which was quantitatively collected and analysed. The biographic data was used to contextualise the reasons behind the participants' educational experiences based on their backgrounds. For example, quantifying participants' income levels or their rural/urban residence gave context to participants' experiences in distanced education during the pandemic and their post pandemic preferences in terms of either continuing with distanced education or reverting to face to face education.

Furthermore, the quantitative data was statistically analysed to identify patterns or relationships/links between participant's biographic data and their perceptions and experiences that came with the abrupt change and removal of place and space-bound learning and activities during the COVID-19 pandemic (Saraswati *et al.*, 2023). This served the purpose of determining the significance of participants' backgrounds to their experiences in distanced education. Also, relationships between participants' biographic data and their experiences, revealed how some spatial or socio-economic factors affected perceptions of distanced education during and post-pandemic educational approaches. For example, the relationship/link between participants' home location and their experiences in using internet from home, which ultimately shaped their experience in distanced education. These relationships contextualised the study and gave a comprehensive perspective to the research (George, 2021; Saraswati *et al.*, 2023; Banawa, 2025). The qualitative-dominant mixed methods can be applied in many different designs including experimental design, ethnography, surveys, case studies and many others.

### **3.2 Research Design**

Due to the fact that this study employed a qualitative-dominant mixed methods approach, which is in its core a mixed methods approach. There are three designs in which a mixed methods approach can be applied; the convergent parallel design, explanatory sequential design or the exploratory sequential design, as shown in Figure 3.1 (Cresswell & Plano Clark, 2018). Mixed methods research designs gives researchers a structured way to merge qualitative and quantitative data (McLeod, 2024). This study adopted the convergent parallel design. The convergent parallel design was used to understand the implications of academic staff and students of an HBU in Alice being suddenly removed from place and space-bound activities due to the COVID-19 pandemic, their experiences in distanced formats of education and their post pandemic approaches or preferences to education.

In order to understand the students and academic staff's experiences in distanced education during and post pandemic, the convergent parallel design suited the way in which data collection was undertaken in this study. Literature has indicated that in the convergent parallel design, both qualitative and quantitative data collection are concurrently collected using the same tool (Kajamaa, Mattick & de la Croix, 2020). This study used the same questionnaire to collect both types of data. This allowed the research to compare and contrast qualitative and quantitative findings during analysis, simultaneously (Banawa, 2025). Other scholars have argued that this design is used when a study specifics allows for the qualitative and quantitative components to be conducted independently – without one being shaped by the results or design of the other – yet both add complementary evidence to the same research goal (McLeod, 2024, Banawa, 2025). This research followed a similar data collection strategy where the biographic data (quantitative) and the participants' experiences in distanced education (qualitative) were collected simultaneously yet they did not have to be shaped by the results or design of the other. Both types of data informed and corroborated each other to achieve the goal of understanding the implications of academic staff and students of an HBU in Alice being abruptly removed from place and space-bound activities and their experiences or post pandemic approaches in distanced formats of education.

Furthermore, in terms of the research implementing the analysis, scholars have argued that the convergent parallel design takes the qualitative data analysis, compares or relates the two in order to interpret them (Demir & Pismek, 2018; Lucas, Kimberly & Jane, 2024). Other scholars have put it in another way, by stating that convergent parallel design involves simultaneously collecting quantitative and qualitative data, separately analyzing the datasets, and then combining the results for interpretation (McLeod, 2024, de la Croix, 2020). This study used a similar approach in analysis to the later scholars. In this study both types of data were analysed independently, where quantitative data was analysed using a statistical analysis package (SPSS) and qualitative data using thematic analysis in ATLAS Ti but the two results were integrated and interpreted to enrich each other. This increased the breadth and comprehensiveness of the study (Swanson & Holton, 2005; George, 2021; Saraswati *et al.*, 2023; Banawa, 2025). Figure 3.1 below is the visual representation of data collection and analysis using the convergent parallel design.

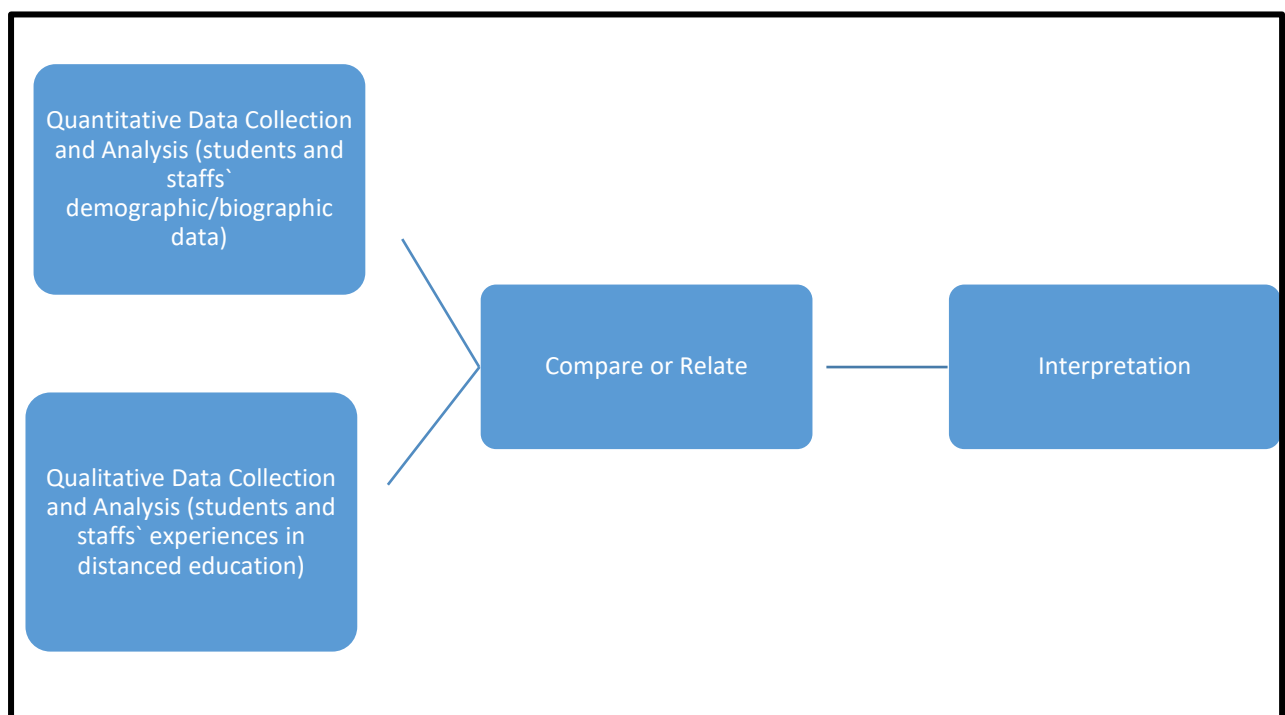


*Figure 3.1: The convergent parallel design. Source (McLeod, 2024).*

### 3.3 Case Study

The study employed a case study design under the overarching convergent parallel design. Case studies are descriptive in nature, aiming to provide in-depth understanding of various cases or a single, exceptional case (Stake, 1995, Creswell *et al.*, 2007). This research's case study is a unique case in that the university is a previously disadvantaged, predominantly Black university (Mail & Guardian, 2014); in addition, little has been studied on how distance education affected such universities, making the case in this research unique. As noted by Khoza and Mpungose (2020), such communities are rarely addressed in the literature.

Case studies are defined in many ways. Miles and Huberman (1994) defines a case study as a phenomenon of sorts, occurring in a bounded context. Yin (2003) defines case studies in a detailed and technical manner, stating that they are an empirical inquiry that investigates a contemporary phenomenon in its real-life context, particularly when the boundaries between phenomenon and context are not evident. Leedy and Ormrod (2005) provides a more fitting definition for this study. They define a case study as a form of qualitative research where in-depth data is gathered relative to an individual, programme, or event, for the purpose of learning more about an unknown or poorly understood circumstance. This suits this research, since distance education in the context of marginalised communities in South Africa with challenging spatial and socio-economic backgrounds have been poorly documented and are thus poorly understood (Yeung & Yau, 2022). Leedy and Ormrod (2005) highlight the time-factor of studying phenomena using case studies; in this case, the study looks into experiences during a specific time period, during and after the COVID-19 pandemic.

The case study university is located in Alice town in the Eastern Cape, South Africa (see Figure 3.2). The case study university was founded in 1916, 60 years after the town of Alice was established (UFH, 2021; Raymond Mhlaba Municipality, 2020). It was the first higher education institution in the country for Black South Africans, yet was open to all races and genders (Raymond Mhlaba Municipality, 2020).

The university has three campuses, in Alice, Bisho and East London. Alice campus is the main campus and has a heritage of academic excellence. Situated close to King Williams Town, the Bisho campus mainly equips students for public service. The

HBU's campus in East London is situated in the metropolitan town of East London (UFH, 2024). This research chose the Alice campus owing to its many characteristics that match the research needs, such as being rural, poor and marginalised (Westaway, 2012; Mdiya, 2020). The Alice campus is situated in the historical town of Alice, which, like many other towns of the province, bears the immense scars of apartheid in the form of social and economic challenges still evident to this day (Westaway, 2012). Figure 3.3 below depicts the location of the case study university, within the rural communities of Alice. These characteristics suit the aims of the study, which is to investigate how spatial and socio-economic backgrounds and factors influenced the experiences and perceptions of staff and students in this HBU when displaced and separated in space during and after the COVID-19 pandemic.

Alice is a semi-urban town in Raymond Mhlaba Municipality, situated at the confluence of the Tyumi and Gagha Rivers in the Amatole District in the Eastern Cape province, South Africa (Raymond Mhlaba local Municipality IDP 2020–2021). Formerly known as Dikeni, Alice is 120 km northwest of one of the Eastern Cape's major towns, East London (Winterberg IDP, 2013; InfoSA, 2021). StatsSA (2023) indicates that the population of Alice is dominated by youth and women aged 22 to 44 years. Westaway (2012) states that because of this HBU, Alice is regarded as a university town, with university playing a vital role in the community of Alice.

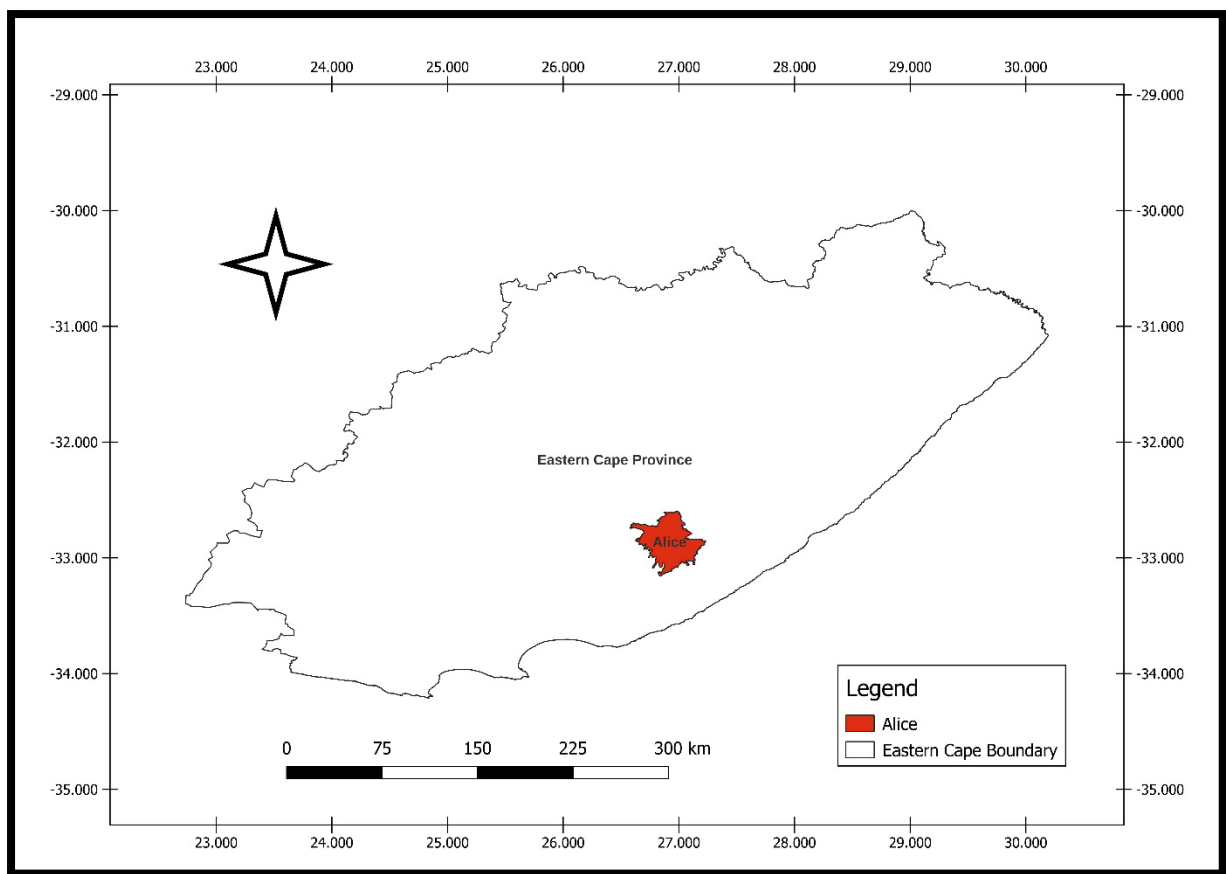


*Figure 3.2 Map showing Alice within the Eastern Cape Province*

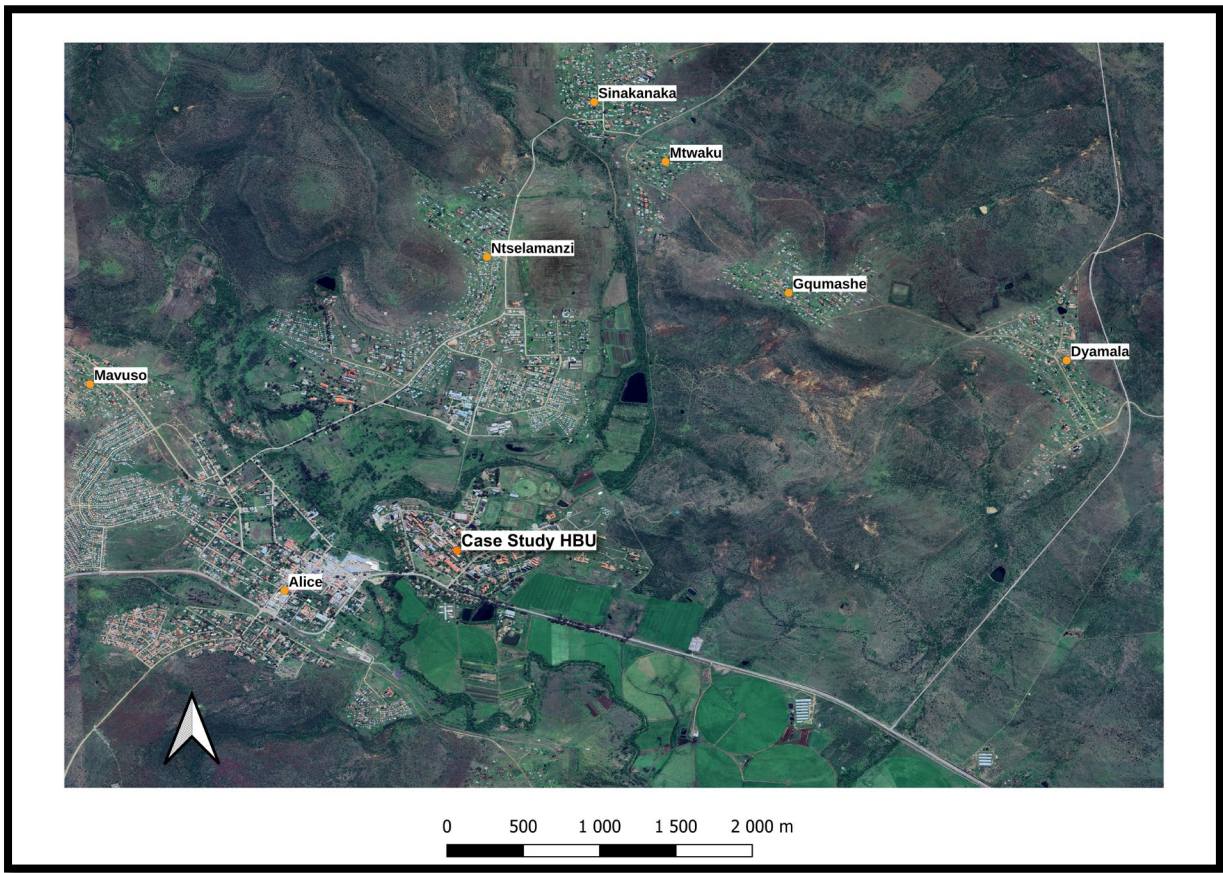


*Figure 3.3: Map showing the case study within Alice town*

Figure 3.3 above depicts the case study institution, surrounded by the villages of Alice. At present, the institution is primarily composed of South African Xhosa-speaking students from rural areas in the Eastern Cape, with the majority being Black African, and a higher proportion of female than male students (StatsSA, 2023). The university has approximately 13 000 enrolled undergraduate and postgraduate students (UFH, 2025). Most students at this institution come from disadvantaged backgrounds, often belonging to the lower socio-economic quintiles (The Council on Higher Education (2023); Govinder, Zondo & Makgoba, 2012). The university's Alice campus was therefore a good fit for this study, as it enabled a close examination of the ways in which spatial and socio-economic backgrounds influenced the experience of being displaced and separated during the pandemic, and then having to adjust to traditional face-to-face classes or blended teaching and learning post-pandemic. Although the university is in a rural and marginalised community (Mdiya, 2020), it harbours staff and students from different backgrounds who may have

experienced distance learning during and post COVID-19 in different ways. The case study university has occupied a significant place in African history and education, with its heritage embodying significant cultural, political and educational narratives. It is known as a site of colonial contestation, and for incubating various liberation movements and educating African political leaders such as former South African president Nelson Mandela and former Zimbabwean president Robert Mugabe (UFH, 2024; Bailey *et al.*, 2017).

Despite the socio-economic characteristics of its students, university self-proclaims as a distinguished African university, advancing both excellence and innovation in research, teaching, learning and administration (UFH, 2023). The university also states that the Alice campus is the heart of the institution (UFH, 2024). In 2024, the Alice campus had six faculties and 9 000 registered students (UFH, 2024; Parliamentary Monitoring Group, 2024). The five faculties are the following: Management and Commerce, with seven departments; Education, no specified number of departments; Social Science and Humanities, with 15 departments; Science and Agriculture, with 14 departments; and the Nelson Mandela School of Law, with four departments (Moyo & Moqasa, 2016). In terms of teaching and learning, the COVID-19 pandemic is said to have played a major role in how the various departments have carried out teaching and learning in recent years. The Parliamentary Portfolio Committee (2024) indicated that the institution migrated from online teaching and learning to blended teaching and learning in 2024.

### **3.4 Sampling**

To collect data, the study used non-probability sampling. The overall population comprised all students and staff at the university's Alice Campus, which was chosen because it is a predominantly Black university and it attracts students mostly from disadvantaged rural communities in the Eastern Cape (Mail and Guardian, 2014).

Non-probability sampling is a technique in which participants are selected using non-random methods, such as convenience or researcher judgment. This means that not every member of the population has an equal chance of being selected as a participant in the sample (Shukla, 2023). Convenience sampling and purposive sampling are examples of non-probability sampling, and were used in this study. From the

population, the study purposefully sampled third-year students and postgraduate students, most of whom had experienced pre- and post-COVID-19 conditions, who were willing to take part in the research. In addition, the sample was designed to include staff and students from both STEM and non-STEM disciplines to fairly represent several disciplines and thus obtain a balanced perspective on their experiences in distance learning. The sample size was not categorically laid out because qualitative design is not as concerned about sample size thresholds as about depth and quality of data; in this case, the sample size depended on the availability of participants at data collection (Creswell, 2014). Table 3.4.1 shows the number of STEM and non-STEM staff and students who participated in this research.

*Table 3.4.1: Response Figures*

| <b>Participant group</b>                  | <b>Number of Responses</b> |
|-------------------------------------------|----------------------------|
| Staff (STEM)                              | 15                         |
|                                           | Surveyed=13                |
|                                           | Interviewed=2              |
|                                           | Focus group=0              |
| Staff (non-STEM)                          | 16                         |
|                                           | Surveyed=12                |
|                                           | Interviewed=4              |
|                                           | Focus group=0              |
| <b>Total for staff</b>                    | <b>31</b>                  |
| Students (STEM)                           | 39                         |
|                                           | Surveyed=20                |
|                                           | Interviewed=0              |
|                                           | Focus group=19             |
| Students (non-STEM)                       | 52                         |
|                                           | Surveyed=40                |
|                                           | Interviewed=0              |
|                                           | Focus group=12             |
| <b>Total for students</b>                 | <b>91</b>                  |
| <b>Overall total for all participants</b> | <b>122</b>                 |

Table 3.4.1 above depicts that a total of 122 academic staff and students participated in this study (91 students and 31 staff). Both quantitative and qualitative data was collected simultaneously and all participants provided the research with both types of data.

### **3.5 Data Collection Tools**

Data collection was done at the Alice campus from September 2024 to February 2025. Data collection started, following the case study HBU and Unisa CAES Ethics approval processes, with the majority of the data collected between November 2024 and February 2025. This was strategically done to coincide with the university schedule, since during this period, students had completed exams and the marking period for staff was over, allowing for a temporary reduction in workload and increased availability to participate in the research.

The triangulation method was used to collect data. Triangulation means using multiple data methods or sources to study the same phenomenon in order to increase the credibility and validity of the findings (Patton, 1999; Bhandari, 2023). The triangulation method was particularly applied in using different sources for the same phenomenon. Triangulation was applied in that, first, the research collected both quantitative and qualitative data from students from different faculties (STEM and non-STEM) on their experiences on distanced education. Furthermore, the research collected data from students at different years of study on the same phenomenon (distanced education). The research also collected data from STEM and non-STEM academic staff on their experiences in distanced education.

The study also used both interviews and questionnaire dissemination to collect data, enhancing the validity and reliability of the study (Gundumogula, 2021). In terms of questionnaire dissemination, the researcher distributed the questionnaires personally to students in hard copies. The researcher also used online platforms where they sent out direct emails containing a hyperlink to the survey to both students and staff. Most staff members preferred to fill in the questionnaire but some academics who did not have time to fill in the questionnaire were interviewed in sit-down, telephonic or online interviews using the questions from the questionnaire as a guide. In the interview process, the researcher used the questionnaire as a guide but did not necessarily ask

the questionnaire verbatim, the process was conversational and allowed the researcher to probe further questions for clarity. Using both questionnaire dissemination and interviews was done to broaden the sample size of staff, thereby increasing the recruitment of willing participants. Using questions from the questionnaire as an interview guide was done for easier analysis and validation of results. Both questionnaires and interviews were used together as the main data collection tools for the academic staff. An audit trail of all the data collected was kept to ensure dependability (Gumede & Badriparsad, 2022). Therefore, the researcher took detailed notes of the interviews. Participants who undertook to complete the questionnaire were given the choice of either hard or soft copies. This choice may have increased participants' motivation to participate in the research, since they could use the mode with which they were most comfortable.

In terms of data collection from students, focus group and questionnaire dissemination were used. The focus group comprised of postgraduate students that had experienced online learning exclusively during the pandemics' hard lock downs and later experienced blended learning when lockdowns were more relaxed. In the focus group, a group of postgraduate students were gathered to discuss their experiences in distanced learning and the researcher as the moderator. Similarly to the interviews, the focus group used the questionnaire as a guide to probe and direct the discussions around key areas of interest in the students' experiences in distance education. This was another way triangulation was applied to understand experiences of students in distanced learning when it was done exclusively and when distanced learning done in a blended setting. The focus group collected data from both STEM and non-STEM postgraduate students in order to obtain a balanced view of experiences.

Data was collected using open and closed-ended questions. Closed-ended questions were used to collect biographic and demographic data. The bulk of the questions were open-ended/semi-structured questions that facilitated more in-depth responses by the staff and students, and also gave participants the liberty to answer the questions without limitations.

The questionnaires were distributed by the researcher in person and online, with interviews also conducted in person and online. After ethical approval had been obtained from the institution (case study), emails to both staff and students were

distributed through a web link. The emails gave participants the choice of whether to be interviewed using the questionnaire or to fill in the questionnaire on their own. Follow-up emails were sent to distribute the questionnaires. To maximise the number of participants, a QR code was generated and used for accessing the questionnaire to make it more accessible. Using these different platforms, the researcher was able to reach a wide variety of participants, thus allowing for a wide range of voices and experiences.

### **3.6 Data Analysis**

Data analysis was conducted using content and thematic analysis (Bengtsson, 2016) and SPSS v 29.0 for part of the data. These methods include de-contextualisation, re-contextualisation, and categorisation, identifying themes and mapping interrelationships between themes in the data (Miles *et al.*, 2014). Thematic analysis was used because distance learning has not been widely studied in disadvantaged communities (Yeung & Yau, 2022), and thematic analysis enabled the researcher to capture all relevant aspects, since the themes were not predetermined but emerged from the raw data (King, 2004). To help with thematic analysis, ATLAS.ti v 25 was used to organise and code the data. The data was then presented using graphs, tables, word clouds and verbatim extracts from participants' interviews and questionnaire responses.

For the quantitative data, the statistical tools SPSS v 29.0 and Microsoft Excel were used according to the objectives. For example, descriptive statistics were run to make sense of the data in order to determine how the demographic characteristics of gender and age affected the students and academic staff. Non-numeric quantitative data was coded with numbers; for example, females were coded 1 and males were coded 2. This enabled input into the statistical packages for easy analysis. Graphs, charts and tables were used to present the analysed data. The results of the quantitative and qualitative data analysis were integrated to provide a comprehensive picture of students' and staff's experiences of distance learning at this study's case study (King, 2004).

### **3.7 Ethical Considerations**

The study's data collection involved human interaction; therefore the research adhered to the research guidelines outlined in Unisa's and the ethics policies of this case study's HBU. At Unisa, the College of Agriculture and Environmental Science Health Research Ethics Committee (CAES HREC application, number CAES\_HREC/2924) approved the study in terms of ethics requirements. At the HBU, the Inter-Faculty Research Ethics Committee (IFREC) approved the study. The researcher also asked participants to participate voluntarily and to sign an informed consent form explaining the study and the fact that they were participating voluntarily. It was made clear that they were free to withdraw from the study at any time with no consequence to themselves. Those who agreed to participate were informed that their identities would not be required for the study and that they should feel free to express themselves honestly. No identifying information was given at any point of the study, in order to maintain confidentiality and anonymity.

### **3.8 Conclusion**

The study employed a qualitative dominant mixed-method approach that was mostly which employed a convergent parallel and case study design. The research used questionnaires, focus groups and interviews to collect data. A semi-structured questionnaire used for participants to fill in and also used as an interview guide. This helped the researcher to delve deeply into the experiences of academics and students of this HBU in distanced education and the effects of spatial and socio-economic factors on their experiences. Hence, the questionnaire was carefully designed to suit the aims of the study. Special care was taken to include both STEM and non-STEM students and staff. The quantitative data obtained through socio-demographic profiles of participants and it helped to establish the backgrounds of the participants. Qualitative data was obtained through the open-ended questions that were the dominant aspect of interest in this study. Links between the quantitative and qualitative data were accentuated in the analysis to give the study a comprehensive and wholistic analysis. Analysis of the quantitative data enabled objective interpretation, helping to make sense of the qualitative data. Analysis was done using ATLAS Ti and SPSS packages.

This chapter has outlined the data collection and analysis methods employed by this study. It has explicitly laid out how each of these was carried out and the tools that were used. The following chapter presents and discusses the findings.

## **CHAPTER 4: RESEARCH RESULTS AND DISCUSSION**

### **4.1 Introduction**

This chapter presents and discusses the research results. In particular, it unpacks the implications of the COVID-19 pandemic on students and academics at a particular HBU in Alice, in the Eastern Cape. It explores their lived experiences, including their perceptions and preferences since being abruptly removed from place- and space-bound education and forced to engage in distanced education. The study further assessed the role of various spatial and socio-economic factors on the perceptions and experiences of students and academics during and after the COVID-19 pandemic, in the context of their position at an HBU. The chapter also delves into the adaptation strategies academics devised to overcome the challenges of the rapid transition to distanced education.

The research participants expressed various views and experiences of distanced education that followed the abrupt yet temporary removal of place- and space-bound education. Having to re-adapt to traditional modes of teaching and learning also affected their overall experience. The students' and staff's spatial and socio-economic backgrounds proved to be highly significant in shaping their experiences during this period. Post COVID-19, the students' perceptions of online learning were more negative than positive; with most preferring face-to-face classes. Staff members alike preferred face-to-face teaching because of the many technical aspects that hindered the effectiveness of online teaching.

### **4.2 Research Results**

The data for academic staff and students are presented separately in this chapter. The first part provides the socio-demographic profiles of students to contextualise them according to their background, including the location of their homes and their household incomes. This is followed by graphs, tables and discussions on the students' lived educational experiences in distanced education, including their tuition preferences. The second part of the chapter presents similar categories of information for the academic staff, with some different categories. Within the data, the responses of STEM and non-STEM participants are highlighted. This helped with determining

nuanced differences or similarities in lived experiences between STEM and non-STEM students and academic staff.

### 4.3 Participants' Socio-demographic Data (Students)

The demographic data sample in this research consisted of STEM and non-STEM students mostly aged 18 to 30 years. This was expected, since the age distribution of university students in South Africa falls predominantly in the 18–24 age bracket (Statica, 2022). The sample comprised more females than males. Black students represented most of the sample and the majority came from rural locations, residing more than 20 km from the university. Most had an average household income below R10 000 per month and most were postgraduate students. Figures 4.3.1 to 4.3.6 show these socio-demographic profiles.

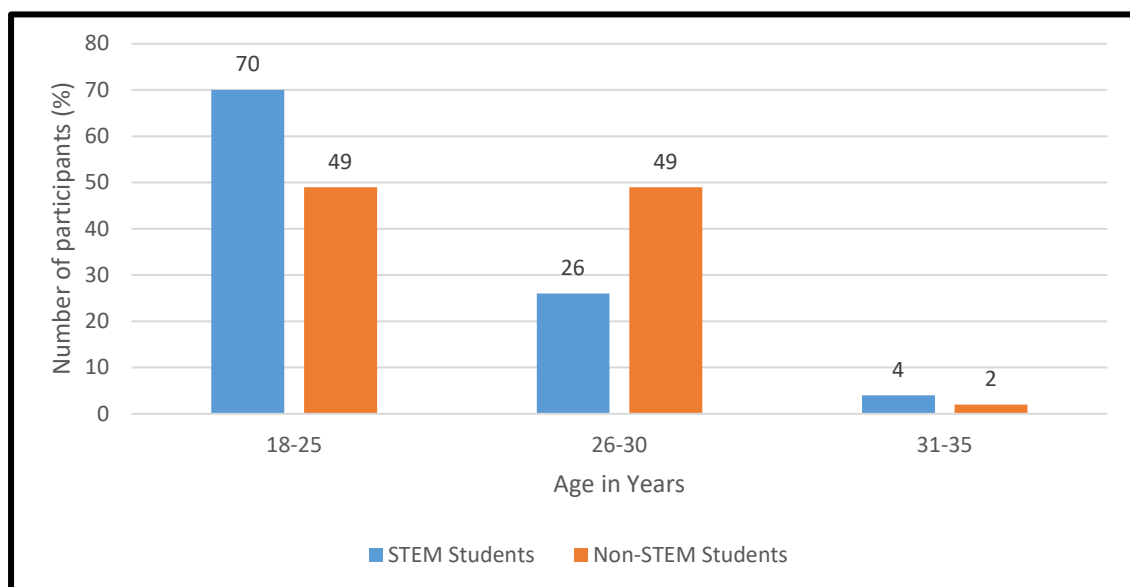


*Figure 4.3.1: Participants' age ranges (students)*

Figure 4.3.1 shows that the majority of the sample of STEM students (70%) were between the ages of 18 and 25 years; 26% of these students were between the ages of 26 and 30 and only a small portion (4%) were aged 31 to 35 years.

The majority of non-STEM students were spread across the age range between 18 to 30 years. The age groups of 18–25 and 26–30 had 49% of non-STEM students each, indicating that the majority of non-STEM students in this sample were older than the

majority of STEM students, who were mostly 18- to 25-year olds. A minority of non-STEM students (2%) were over 31 years.

Overall, the age of this sample affirms previous research data that indicates that the dominant student age group in South African universities is between 20 and 24 years (Statistics SA, 2022; Council of Higher Education, 2021, VitalStats, 2021). Age is an important variable in this research because technology is the main instrument in online learning. A plethora of research has indicated complex relationships between age and the willingness to embrace technology in online learning, with some research indicating a negative relationship between older people and online teaching (Staddon, 2020). However, some research has indicated that there is no correlation (Mangundu, 2023; Wang XingHua, 2021).

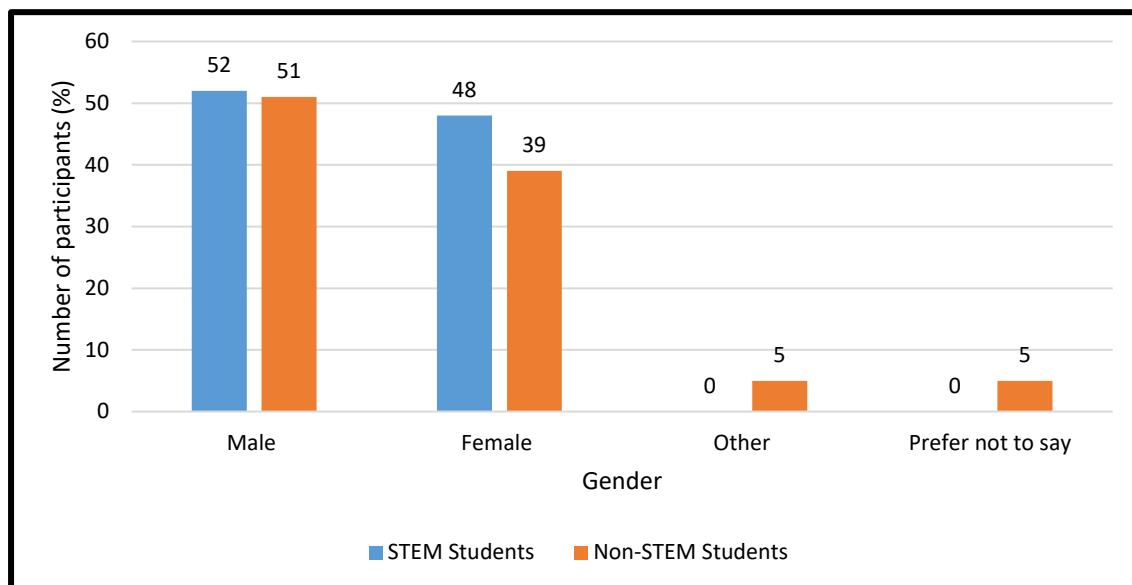


*Figure 4.3.2: Participants' genders (students)*

Figure 4.3.2 shows that 52% and 51% of STEM and non-STEM students, respectively, were males. This was slightly above the 48% and 39% for their female counterparts in STEM and non-STEM, respectively. These figures do not align with national statistics that suggest that, in general, the proportion of females in South African universities is higher than that of males (StatsSA, 2022; DHET, 2024). The anomaly in this study could be a result of chance, the small sample size, or limitations of the study in relation to national statistics. Less than 5% of the students preferred not to disclose their gender. Studies have related gender to technology acceptance and use, with some

studies indicating a stronger inclination to use technology among males than females (Mangundu, 2023). However, there is a greater body of research that finds no significant gendered differences in technology acceptance (Wang Xinghua, 2021; Teo, *et al.*, 2021; Garutsa, 2025; Khoza, *et al.*, 2021).

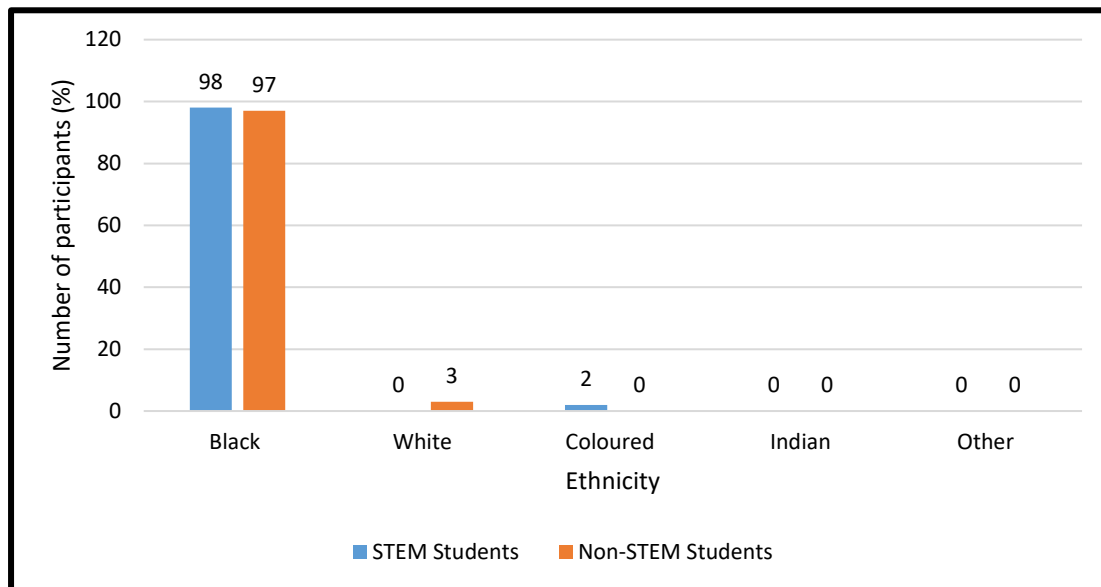


*Figure 4.1.3: Participants' ethnicity (students)*

Nearly all of the participants in this study were Black, apart from 3% who were white and 2% who were coloured, as shown in Figure 4.3.3. This was expected, given the demographics of the study area and the case study being of a historically black university. Statica (2023) highlights that 76.4% of students in South African universities are Black, while 11.4% are white, 5.7% Indian/Asian, and 6.5% are coloured.

HBU were established to serve the educational needs of the ethnic groups that were previously disadvantaged (Mngomezulu & Ndlovu, 2013). The university was established as an HBU in the Eastern Cape to serve the educational needs of the Black community affected by the apartheid regime (Mdiya, 2020). The effects of apartheid remain significant in higher education, causing unequal access to ICT resources and infrastructure and leading to subtle exclusion from online learning for Black students from previously disadvantaged universities (Hlatshwayo, 2020). The literature shows that ethnicity, home location and unequal access to resources affect success in online learning (Mangundu, 2023).

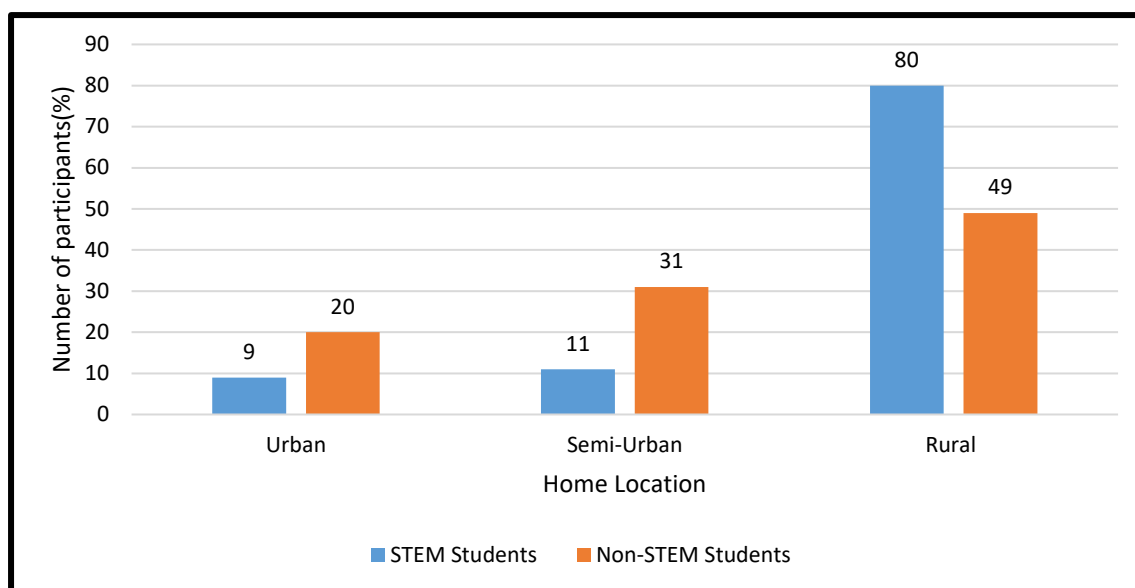


*Figure 4.3.4: Participants' home locations (students)*

Figure 4.3.4 shows that the majority of students were from rural areas. The university draws its STEM and non-STEM students from rural areas (80% and 49% respectively), with STEM students being in the majority (80%) for residing in rural areas. Non-STEM students appear to be more evenly distributed across urban, rural and semi-rural locations, with a relatively larger proportion in rural areas. A lower number of students in both faculties reside in semi-urban areas, with more non-STEM students (31%) than STEM students (11%) residing in semi-urban areas. The smallest number of students reside in urban areas – 9% and 20% for STEM and non-STEM students, respectively. This result is expected, given the profile of Alice as a rural town and the university as an HBU. Most HBUs are remotely located on the outskirts of small towns, marginalised and isolated in rural communities as opposed to historically advantaged institutions (HAIs) (Mdiya, 2020).

Research has shown that 60% of Alice's population resides in rural areas, with the university campus fed by students mostly from surrounding villages (Cornor, 2020; UFH, 2024). This remote cohort of students is significant to the study in light of the digital divide that separates students from rural backgrounds from their urban counterparts in terms of access to ICT infrastructure, electricity, and internet connectivity and strength, among other factors (Gamage *et al.*, 2020; Barrot *et al.*, 2021). In fact, some scholars have indicated that South Africa is the most unequal country in terms of the digital divide (Czerniewicz *et al.*, 2020). This implies that this

case study's students are likely to be vulnerable in online learning based in their homes, suffering from poor access to ICT resources, and likely to prefer campus-based learning to achieve their educational goals.

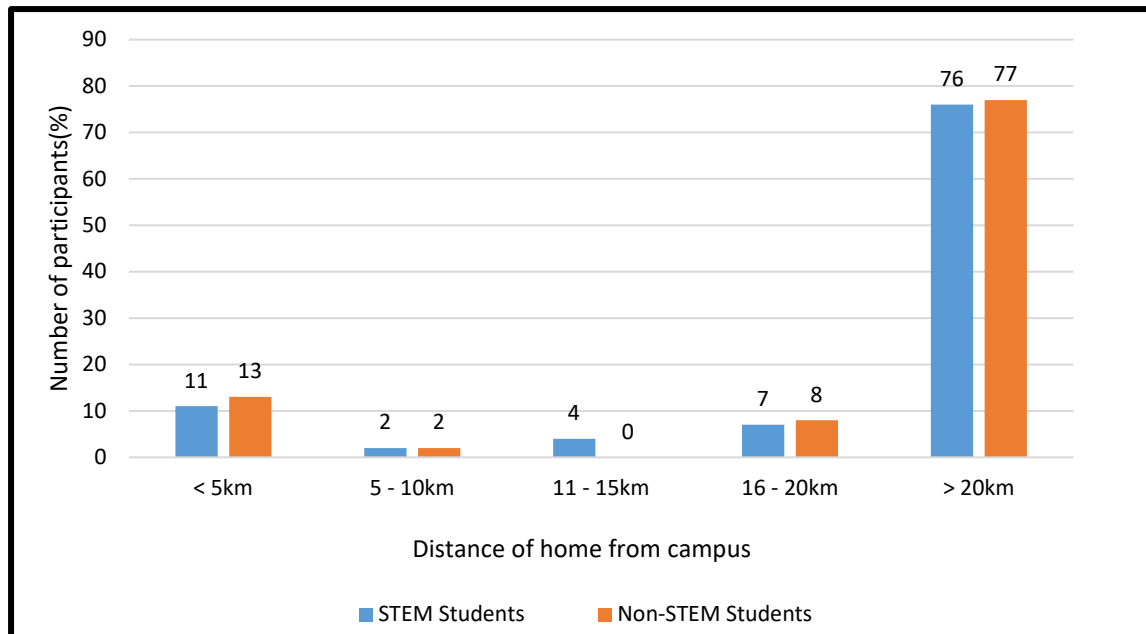


*Figure 4.3.5: Participants' distance from home to campus (students)*

As shown in Figure 4.3.5, the majority of students from both faculties resided far from campus (>20 kms away), followed by those who resided less than 5 kms away. The latter were a significantly smaller group, and may have represented students living in student accommodation close to campus. Most students lived far from campus, suggesting that they were unlikely to have had easy access to campus even when COVID-19 restrictions were relaxed. For these students, university residential accommodation would have been the best option, for without it they would have needed to commute a significant distance to campus each day. The literature shows that HBU students have poor access to ICT resources in their homes, which hinder them from fully studying online without interruption; hence commuting to campus to access these resources becomes an option (Aruleba & Jere, 2022; Gunter, 2025). Amidst these challenges, students' socio-economic backgrounds become critical factors, affecting their experience of enforced online learning (Hendrics & Mutongoza, 2023).

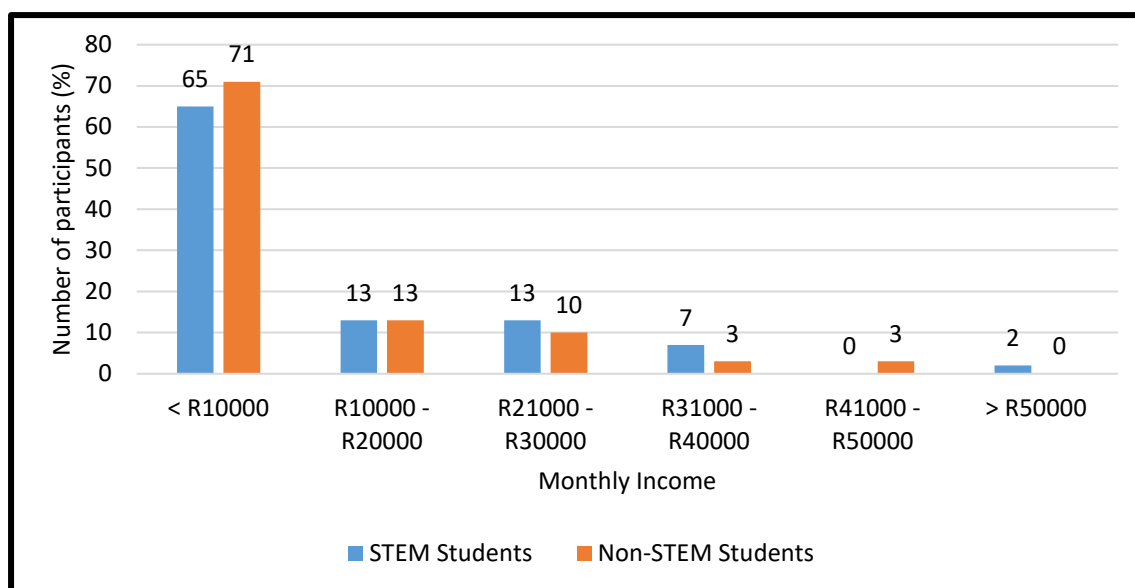


Figure 4.3.6: Participants' household monthly incomes (students)

Figure 4.3.6 shows a comparison of monthly household incomes, showing that 65% and 71% of STEM and non-STEM participants, respectively, come from households earning less than R10 000 per month. In South Africa low-income households are generally defined as earning less than R8,000–R10,000 per month (Statistics SA, 2024). That is, the majority of students in both faculties come from low-income households. A small portion (2%) of STEM participants came from households receiving R50 000 or more in income per month, while none of the non-STEM participants fell within this range. The graph shows that the numbers of participants descend as the income categories ascend. Mushunje and Olawuyi (2023) stated that 74% of low-income communities in the Eastern Cape live below the poverty line. This suggests potential for financial stress to impede a successful experience of online learning, since lack of funds for digital resources like Wi-Fi, data and competent devices would almost certainly have affected most of this cohort. This lack of adequate infrastructure would negatively affect synchronous lecture participation and attendance (Azionya and Nhedzi, 2021; Mhlanga *et al.*, 2022; Darkwah, 2020; Dube, 2020).

Overall, based on the participants' profiles, the findings show that the students in this study were a vulnerable group in distanced education or in the online learning space because of the digital divide caused by rural location and low incomes. Figure 4.3.3 breaks this down further, showing that most students in this HBU are Black, and it has

been widely observed that owing to the effects of the colonial and apartheid past, Black students are largely excluded from online learning (Hlatshwayo, 2020). Figures 4.3.4 and 4.3.6 further indicate that most students in this HBU come from rural, low-income households. Based on their location, these students were/are susceptible to poor ICT infrastructure such as poor internet coverage and lack of electricity (Mdiya, 2020; Dube, 2022; Hlatshwayo, 2020). The literature also indicates that low-income households have limited access to digital resources like laptops or funds to buy data/Wi-Fi in order to successfully learn online. The interplay of these factors in the lives of the students in this study created a 'perfect storm', placing them at risk of dropping out of online studies and reinforcing their need for place-based learning.

The need for adequate place-based learning for HBU students is significant in this study because HBU students are better able to access education when in place-based learning than in online learning (Monasamy & Naidoo, 2022). For these students, campus-based learning is not a choice but a need. Abruptly forcing these students into distanced education through online learning during the pandemic meant that they had no choice but to strive to keep up, using their limited resources (Mdiya, 2020). This theme highlights the role of socio-material assemblage (access to Wi-Fi, electricity and laptops) and place (the rural nature of this HBU) in the provision of educational experiences (Gunter, 2025; Carroll, 2018; Breines *et al.* 2019).

#### *4.3.1 The enablers of online learning in this case study*

To further examine the role of socio-material assemblage, place and distanced education, this section explores the resources and enablers of online learning and how these resources combined with students' spatial backgrounds to produce a particular experience of distance education. This discussion draws from research by Holmberg (2005) and Gunter (2025), who explored how spatial and socio-economic disparities affect distance education in Africa. Similar to these scholars' research, this study looked into spatial and socio-economic disparities of distance education but on a smaller scale, on a specific small community, namely, one HBU in Alice town, constituting rural dwellers who are low-income earners. The current study goes further to focus on not only distance education but distanced education and how spatial and socio-economic factors affected academic staff and students of this institution in their

temporary displacement in being removed from place and forced into distanced education during and after the pandemic. Findings related to small groups may add nuance to research conducted on a larger scale such as a country or continent. The current research highlights different contexts and nuances on how distance(d) education in South Africa, particularly in HBUs is experienced. The COVID-19 pandemic predominantly highlighted the issue of spatial disparity and the significance of geographic and socio-economic inequalities in Africa, showing their effects on students who had registered at a residential university and were abruptly forced into distanced education through online learning. In enrolling at a place-based university, they had signed on for the use of on-campus resources like Wi-Fi, libraries and other on-campus facilities, all of which were lost to them when they were compelled to move back into their homes in rural areas to study from home. The pandemic therefore brought in an interesting new dynamic, starkly revealing how place and space – and not just individual or economic characteristics – shape access to education in Africa.

Within the setting of their own homes, certain enablers either helped or hindered these students as they attempted to engage in online learning in far from ideal circumstances. These included physical resources such as study space and non-physical resources such as social media and other forms of communication between students and lecturers. A particular source of help would have been pre-pandemic exposure to online learning.

Table 4.3.1.1 presents a summary of participants' educational experiences and preferences with regard to online learning. The first column indicates the variable, the second column indicates the Likert-scale options presented, and the last two columns indicate the mode. The mode is the most common value in a data set, being the value that appears most frequently (Manikandan, 2011). It is a measure of central tendency. In the case of this research, the mode represents the most popular choice among the options given to students, revealing their top preference.

*Table 4.3.1.1: Summary of participants' educational experiences and preferences in online learning (students)*

|                                                       | Scale                                                                                   | Mode (Non-STEM Students) | Mode (STEM Students) |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------|----------------------|
| Study space availability                              | Strongly disagree = 1<br>Disagree = 2<br>Neutral = 3<br>Agree = 4<br>Strongly agree = 5 | 3                        | 2                    |
| Experience of online learner pre-COVID-19             | Never = 1<br>Rarely = 2<br>Sometimes = 3<br>Often = 4<br>Always = 5                     | 1                        | 2                    |
| Frequency of online learning experience post COVID-19 | Never = 1<br>Rarely = 2<br>Sometimes = 3<br>Often = 4<br>Always = 5                     | 1                        | 2                    |
| Internet connection availability                      | Yes = 1<br>No = 2                                                                       | 1                        | 1                    |
| Reliability of internet connection                    | Very poor = 1<br>Poor = 2<br>Moderate = 3<br>Good = 4<br>Very good = 5                  | 2                        | 2                    |
| Electricity availability                              | Yes = 1<br>No = 2                                                                       | 1                        | 1                    |
| Electricity stability                                 | Very poor = 1<br>Poor = 2<br>Moderate = 3<br>Good = 4<br>Very good = 5                  | 3                        | 4                    |
| Load shedding                                         | Yes = 1<br>No = 2                                                                       | 2                        | 3                    |
| Student–lecturer interaction                          | Very poor = 1<br>Poor = 2<br>Moderate = 3<br>Good = 4<br>Very good = 5                  | 3                        | 3                    |
| Social media use                                      | Never = 1<br>Rarely = 2<br>Sometimes = 3<br>Often = 4<br>Always = 5                     | 2                        | 3                    |
| Use of social media vs official university platforms  | Prefers social media = 1<br>Prefers official university platforms = 2                   | 1                        | 1                    |
| Online-learning skills                                | Very poor = 1<br>Poor = 2<br>Moderate = 3                                               | 3                        | 3                    |

|                                            |                                                                                                                             |   |   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---|---|
|                                            | Good = 4<br>Very good = 5                                                                                                   |   |   |
| Performance in online vs in-person classes | Greatly deteriorated = 1<br>Slightly deteriorated = 2<br>No difference = 3<br>Slightly improved = 4<br>Greatly improved = 5 | 3 | 3 |

As may be seen in Table 4.3.1.1, the first variable pertains to students' ability to secure a space to study at home without any disturbance. On average, the data indicates that the non-STEM students' opinions were neutral in this regard (a mode of 3). This could be because non-STEM students were more spread across rural, urban or semi-urban areas than STEM students, as shown in Figure 4.3.4. STEM students indicated that they did not have space to study at home without disturbance, evidenced by a mode of 2. Figure 4.3.4 further indicated that the majority of STEM students came from rural homes. The findings therefore show that the availability of space to study may be related to whether the student was situated in an urban or rural area. Other research has indicated that the unavailability of study space is particularly pronounced for students from rural backgrounds, which this study confirms (Brachtl *et al.*, 2023). Studies have also shown that having no dedicated learning space negatively impacts students' learning experience (Keser Aschenberger *et al.*, 2022, Brachtl *et al.*, 2023). The implication is that rural students need to be better accommodated when changes in instruction from place-bound to online learning happen, because they are especially dependent on on-campus facilities. This further affirms the theme of the importance of place and HBU students' need for adequate place-based education where they have dedicated study spaces like libraries, because when studying remotely, most lack the space to study at home.

The second variable depicts the students' experiences with studying remotely before the COVID-19 pandemic. From Table 4.3.1.1, it is evident that STEM students were more exposed to online forms of distanced learning prior to the pandemic (mode = 2) than non-STEM students. Most non-STEM students had not had any prior experience of distance education before COVID-19 (mode = 1). This has implications for transitioning to online learning, because familiarity with online learning can act as a 'learning place'. The STEM students may have found the transition to online learning slightly more manageable than the non-STEM students with no prior experience of

studying remotely. The finding reveals the micro-differences between the experiences of students in the same HBU.

Students were asked about the frequency of their experience with online learning after the return to face-to-face lectures once the COVID-19 restrictions had been lifted. The majority of non-STEM students indicated that they had not studied at home since the institution returned to face-to-face classes. This is an expected response when one considers that most non-STEM students also had no prior experience with studying remotely; the difficulties they had experienced with this mode of studying may have prompted them to abandon it as soon as face-to-face classes became an option. Interestingly, the research indicates that most non-STEM students had sufficient space at home in which to study, yet still chose to return to campus for face-to-face classes. STEM students, on the other hand, indicated that they ‘rarely’ studied from home after the university resumed face-to-face lectures, meaning that, although uncommon, they did engage in some remote study post-pandemic. This may suggest that pre-pandemic exposure to online learning was so influential in easing students into online learning during the pandemic that it outweighed the matter of lacking dedicated study space at home.

For learning to effectively take place online, various tools and digital resources need to be present and functional (Singh, 2025). Access to digital tools and resources shows the relevance of socio-material assemblage, which forms part of this study’s conceptual framework. Material elements are essential in the production of educational experiences (Carroll, 2018). In this regard, students were asked whether or not they had internet connections in their homes. The majority of STEM and non-STEM student participants did not have internet connection in their homes, as shown in the mode of 1 for both groups (Table 4.3.1.1). This makes sense, as Figure 4.3.4 shows that most students in this HBU’s Alice campus come from rural households, and lack of internet in the home is typical of rural households (Aruleba & Jere, 2022) (Dube, 2020; Hlatshwayo, 2022).

The lack of internet in most students’ homes highlights the digital divide, in which marginalized communities have little access to resources and technology, affecting their successful engagement in online learning (Gamage *et al.*, 2020; Barrot *et al.*, 2021). Having no internet in the home implies that students from this study’s HBU

cannot effectively study from home, making their removal from place (campus) a mechanism of educational exclusion. On campus, students would have free access to libraries, classes or Wi-Fi, which would bridge this gap.

The lack of digital resources such as the internet revealed several related aspects in this study. First, it exposed the digital divide that disadvantages rural students in distanced education. Second, it reveals a theme of dependency on campus-based facilities, showing that rural students need access to campus-based facilities if equal access to education is to be fostered in online spaces. Third, it reveals the fact that for HBUs, distanced education during the COVID pandemic defeated one of distance education's own goals, which is equal access to all students despite their geographic location (Gunter *et al.*, 2020; Jandric & Hayes, 2019).

The digital divide is further exacerbated by students' socio-economic conditions. Figure 4.3.7 shows how students in this HBU funded their sources of connectivity, indirectly revealing their socio-economic status.

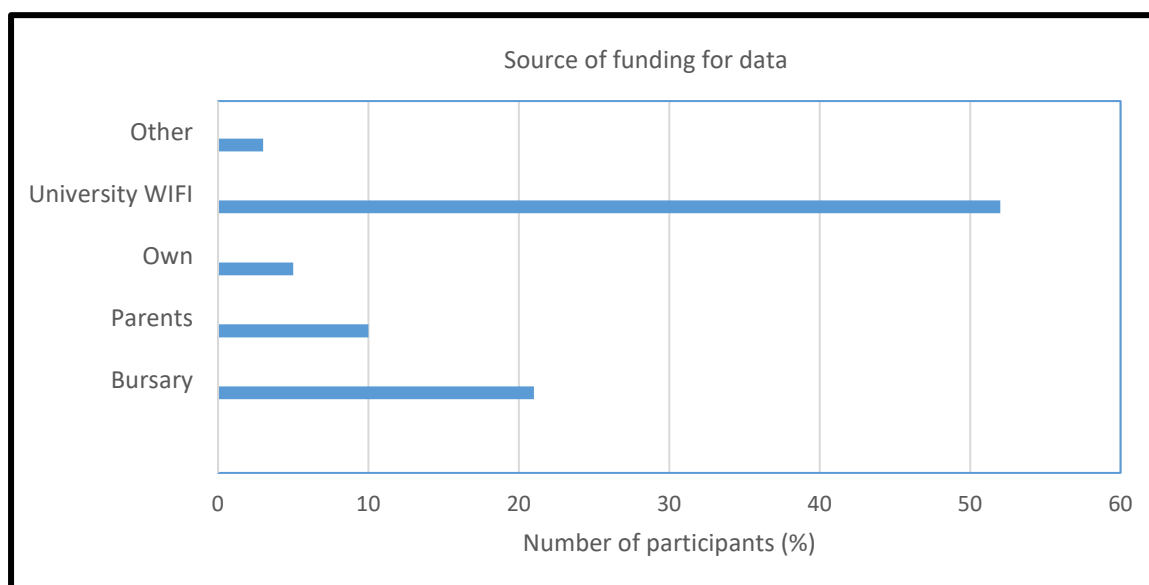


*Figure 4.3.7: Participants' sources of funding for connectivity (students)*

Figure 4.3.7 shows that the majority of participants (more than 50%) relied on university-provided Wi-Fi for their connectivity needs. This indicates that the institution plays a vital role in enabling these students to carry out their online learning. This is because, as has been shown, most HBU students come from rural, low-income

households, and cannot afford to buy their own data. By providing free Wi-Fi, the university makes an important contribution to educational accessibility (Kharmā *et al.*, 2021; Maharaj, 2023). Being removed from place meant that only the few who were able to fund their connectivity either through their bursary or their parents (as per Figure 4.3.7) were able to access online material to study remotely.

A study by Ndzinisa and Dlamini (2021) concluded that although online learning in South Africa was initially a response to an unexpected event, university responses to the pandemic should not have come at the cost of accessibility. This study reveals that this is exactly what happened, in that the response abruptly shifted students into distanced education where access was in effect denied. However, as Figure 4.3.7 shows, the response itself was not the main cause of unequal access, but rather the students' spatial and socio-economic conditions. These expose that the digital divide, rather than simply the temporary removal from place, is the main cause of unequal access to educational opportunities. These conditions continue to prevail post-pandemic and suggest that online learning cannot be a viable long-term option for rural students.

Figure 4.3.7 further indicates that a small minority of students purchased their own data, indicating financial independence. Some students relied on financial support from either parents or bursaries to purchase their data. The lowest number of participants ('other') mentioned alternative sources of connectivity such as home Wi-Fi. However, as Table 4.3.1.1 shows, those with an internet connection at home often had poor connections. Therefore, even students who can afford to access internet at home may not be able to study online effectively owing to weak networks, and as a result may also need campus-based facilities. This adds some nuance to previous studies that indicate that students from low-income homes are those most disadvantaged in distance education because they cannot afford to access internet at home (Hasan & Bao, 2020; Gunter, 2025; Henricks & Mutongoza, 2023). This study suggests that all students who reside in rural areas, whether or not they can afford to pay for an internet connection, are equally disadvantaged and unable to study effectively online, because of a lack of network. This reinforces the significance of place and socio-material assemblage in facilitating successful online education.

A related element was the strength of the internet, where it was available. In interviews, some students stated that the internet connection was so poor and unreliable that they had failed to attend classes, submit assignments or communicate with their lecturers. The following quotes reflect some of their lived experiences in this regard:

*“There is no network at home so I avoid being away from campus”*

(Anonymous STEM student).

*“I simply cannot do anything from home because there is very, very poor network”* (Anonymous STEM student).

*“The network is so poor that it takes ages to load a single internet page, so I do not bother trying to attend classes from home”* (Anonymous STEM student).

*“I am able to log on to classes but sometimes the internet glitches mid-class and I feel left behind”* (Anonymous non-STEM student).

*It affects me negatively. I sometimes get important emails late”* (Anonymous STEM student).

Many students revealed that they felt limited when studying from home because of unstable internet connections. Some indicated that during hard lockdowns when they could not access the campus, they had to adapt and come up with alternative ways of accessing online classes:

*“I have to wait for times that the internet connectivity is good, like at night, and this forces me to only study at certain times”* (Anonymous non-STEM student).

*“I have had to walk to nearby internet cafes that were open during lockdown in order to log on to Blackboard and access notes and assignments because at home where there is no network”* (Anonymous Non-STEM student).

The students' experiences revealed dissatisfaction with distanced education through online learning because of their inability to access classes or course materials from home. A study by Moonasamy and Naidoo (2022) supports this finding, concluding that South African university students are not satisfied with the current state of online learning and thus depend on campus facilities.

HBU students depend on and require on-campus facilities in order to study effectively. The COVID-19 restrictions highlighted this dependency. The findings suggest that in any move to online learning, efforts need to be made to assist students with internet connectivity in order to attain the goal of providing equal access to education.

Although the research revealed that the internet connection was generally poor in the students' homes, as the majority came from rural areas (Figure 4.3.4), there were a few students who indicated that their internet connection at home worked very well and allowed them to carry out their academic tasks without interruption. These students probably formed part of the 9% of STEM students and the 20% of non-STEM students who lived in urban areas (see Figure 4.3.4), where internet connections are better than in rural areas (Gunter, 2025; Aruleba & Jere, 2022). A number of studies have indicated that students from different backgrounds have different levels of access to education in online learning, creating a digital divide (Cullinan *et al.*, 2021; Woldegiorgis, 2021; Gunter, 2025). The digital divide is evident in this research. Network disparities meant that urban students could continue learning online during the pandemic, leaving their rural counterparts behind.

Another enabler of distanced education is the availability of electricity. Table 4.3.1.1 shows that all the student participants had electricity at home; non-STEM students said that electricity provision was moderate, while STEM students indicated that their connection was good (electricity stability = mode of 4). This suggests that among the study's cohort, electricity was one element that did not prohibit access to education.

The corollary to this, however, is that load shedding does prohibit access to education. Although the students' homes were connected to the electricity grid, load shedding affected their access to it. Load shedding was introduced in 2007, meaning that by the time the COVID-19 pandemic lockdowns were introduced, South Africa was already facing the realities of regular power cuts (Hlatshwayo, 2022). HBU students in this

study indicated that they had experienced load shedding when studying from home and many indicated that it slowed down or even cut off internet connectivity. This finding supports that of many other studies that have linked poor network connections to load shedding (Maharaj, 2023; Zalat *et al.*, 2021; Pokhrel & Chhetri, 2021; Pungwa & Moonasamy, 2024). These scholars show that power outages during load shedding cause technology-based tools and the internet to be interrupted, and as a result, students fail to attend online classes or carry out tasks on university platforms, hindering the seamless delivery of educational content. In this regard, students said the following:

*“I struggle to submit on time when we have load shedding because of network – there is no network during load shedding”* (Anonymous STEM student).

*“Network is weak when there’s no electricity so I can’t attend classes”* (Anonymous STEM student).

*“No electricity, no internet network where I stay, so I cannot access anything online when there’s load shedding”* (Anonymous non-STEM student)

*“I have to postpone watching classes because I cannot log on to Blackboard when there’s no electricity”* (Anonymous STEM student)

*“I miss classes when they happen during load shedding”* (Anonymous non-STEM student)

*“Load shedding slows me down because I have to wait for electricity to come back for me to study”* (Anonymous non-STEM student).

Other students expressed how the effects of load shedding made them feel:

*“Load shedding is irritating because it makes me anxious of missing important emails when I do not receive them because there’s no network during load shedding”* (Anonymous Non-STEM student).

*“I feel left behind when I miss classes because of load shedding”*  
(Anonymous Non-STEM student).

*Load shedding discourages me because sometimes I will be wanting to study for a certain amount of time but load shedding interrupts me and I have to wait for electricity to come back for me to access internet”*  
(Anonymous STEM student).

The quotes show that load shedding has an overall negative impact on students' experience with distanced education. Other studies support this finding, with some scholars stating that load shedding significantly compromises learning outcomes for students (Gumede & Badriparsad, 2021; Maharaj, 2023; Mhandu *et al.*, 2021). The quotes also show that load shedding affected students' mental health, causing frustration and anxiety. Many studies have indicated the same; for example, a study by Maharaj (2023) indicated that frequent disruptions caused by load shedding can lead to increased stress and frustration among students, affecting their engagement and performance.

Although load shedding affects all spheres of life, for students from HBUs, load shedding widens the already existing digital gap, in that the inconveniences of load shedding add a further layer of burden on already burdened students. The study has revealed that these students already face many other challenges like being removed from campus facilities on which they completely depended, having to adjust to studying alone at home with no psychosocial support, and dealing with a digital divide in which they were compelled to navigate distanced education with poor or no internet and very low financial resources. Adding constant interruptions to electricity supply and lacking the resources to provide alternative sources of electricity added an extra burden. Studies concur with this, confirming that load shedding widens the existing digital divide by making digital resources inaccessible to low-income communities that cannot afford alternative sources of power (Khoza & Mukonza, 2025; CIPESA, 2023; Maharaj, 2023).

Besides access to electricity, having access to or owning a digital device is an important enabler in distanced learning. The literature shows that without digital devices, learning becomes a challenge, because online learning requires the use of

digital devices to access study material (Dhawan, 2020; Naidoo & Israel, 2021). This study found that all students had access to a digital device. The majority had laptops, except for a few who had alternative devices like tablets or phones with which to access study material. This finding differs from that of many other researchers who state that South African higher education students often lack devices like laptops, tablets or phones to be able to engage in online learning (Hlatshwayo, 2022; Azionya & Nhedzi, 2022). Panther *et al.* (2020) state that students from low-income households often cannot afford to buy digital devices and rely on on-campus computers to study. The expectation was that students in this study, too, would lack devices; however, the study shows that their reliance was more on the internet capability of the university facilities than university laptops or other devices. The study shows that there was a measure of digital equity, since all students had the necessary digital devices to study (Mulaudzi, 2024).

In retrospect, the digital equity portrayed by this study could be ascribed to the practice of many universities during the pandemic of 'loaning' laptops to students who did not have devices. Students were required to repay the universities in instalments during the course of their study (Fouche & Andrews, 2021; Maphalala & Adigun, 2021; Hanekom, 2020). This helped bridge the digital divide, allowing some measure of equal access to distanced learning for all students, although the role played by the devices was relatively small, as may be seen in findings related to electricity, income and internet coverage. Such actions by the university speak to the dependency of HBU students not only on campus facilities, but also on support from the university with regard to the provision of devices.

Although students encountered challenges in shifting to distanced education, students indicated ways in which they attempted to counter the challenges they experienced. The following word cloud highlights some of the themes that were raised by students to curb these challenges.



*Figure 4.3.8: Word Cloud: Online learning strategies devised by students*

Figure 4.3.8 indicates that most students point out that they needed to plan ahead in order to study successfully. This is because they alluded to lack of conducive space and environment to study at home. This could be owed to rural, township and semi-urban households lacking adequate space for students to study from home (Mahlaba, 2020; Dube, 2020). Students also indicated that planning was essential because of load shedding hence they needed to know load shedding schedules in order to plan when to study. This also indirectly meant that students had to manage their time well. Students in this study concurred with literature that has indicated that time management was essential for HBU students studying from home also because of the many responsibilities (mainly household and agricultural) that they are expected to partake in (Gyamfi, 2025).

Social media was another theme highlighted by students as a strategy against isolation experienced in distanced learning during the pandemic. Literature has

already indicated that technical challenges like poor internet connections tend to isolate students in distanced learning (Aruleba & Jere, 2022). Students thus used social media to interact with their peers both socially and academically to seek assistance in concepts they may not understand or have missed due to technical challenges preventing them from attending synchronous classes (Rahman *et al.*, 2022; Aruleba & Jere, 2022). This highlighted the significance of place for HBU students who may needed to find strategies that are specific to the `place` they study from in distanced education or online environments.

#### 4.3.2 *Perceptions of students adapting to 'Distanced' Education.*

*'Place is an important part in shaping learning, as our sense of place serves as a lens through which we interpret our experiences (Yu, 2024 p. 12).*

This study has already referred to the importance of place in the success of distance education, showing that it affects many variables. Place also shapes students' experiences and perceptions of distanced education. Sun *et al.* (2022) argued that place plays a role in the interaction between students and their educators, with this interaction shaping students' attitudes to and experiences of distanced education. In this research, the theme of communication/interaction was highlighted by students as one of the main drivers of their perceptions of distanced education. The majority of both STEM and non-STEM students expressed that their interaction with lecturers when studying from home/remotely was moderate, as indicated by a mode of 3 in Table 4.3.1.1. The students also stated that they mainly used official university platforms (Blackboard or emails) and rarely used social media (WhatsApp, Facebook, Twitter (X) etc.) to interact with lecturers when studying from home. The students said:

*"I use Blackboard because it is more professional"* (Anonymous, STEM student).

*"I use official platforms because they are more professional and appropriate, unlike social media where people can be too social and forget that it is a learning environment"* (Anonymous, non-STEM student).

*“I find university platforms easier to use because everyone’s contact details are in the platform, unlike social media where I need to first look for someone’s number or handle in order to communicate with them”*  
(Anonymous STEM student).

*“The official platforms are designed to make it easier to communicate with lectures than on social media”* (Anonymous, non-STEM student).

*“I use Blackboard because I feel like it is designed to make it easier to communicate on issues that relate to my classes than on social media”*  
(Anonymous, STEM student).

These sentiments do not support the findings of other studies that assert that social media use is beneficial in distance education, helping to bridge the digital divide, increase access and boost student engagement in resource-constrained environments (Bozkurt, 2023; Madge *et al.*, 2019; Mphuthi, Ngoveni & Mphahlele, 2025; Makoe, 2024). Since Alice is a resource-constrained community, the expectation might have been that students at this HBU would choose to interact academically on social media, but the quotes show that this was not the case – students preferred to use more academically oriented university channels.

Their reason for preferring official platforms aligns with research that has argued against the use of social media in educational interactions. Josefsson *et al.* (2015) and Purvis *et al.* (2020) found that social media platforms like WhatsApp and Facebook are perceived as ‘social tools’, whereas official platforms like Blackboard are perceived as ‘professional tools’. Some scholars have argued further by stating that even among students whose social media use was high in educational environments, they mainly limited to using it for queries rather than major educational activities such as assessment submissions or presentations (YU & Motlhabane, 2022). The scholars highlight that these perceptions lead to resistance to the idea of using social media for formal educational interactions.

Furthermore, some students indicated that the reason they chose to use official platforms is that social media was full of distractions. This aligns with Azizur Rahman *et al.* (2020) and Van den Berg and Mudau (2022), who found that students using

social media are constantly tempted to divert their attention to non-educational activities during class time or use it as a procrastination tool instead of focusing on their studies. Students said:

*“I use Blackboard and emails because there are no disruptions on university platforms”* (Anonymous, non-STEM student).

*“I use official platforms because I lose focus on social media because I get easily disrupted by other messages”* (Anonymous, STEM student).

*“I intentionally avoid using social media when communicating with my classmates because we end up talking or discussing other things that are besides schoolwork”* (Anonymous STEM student).

The students’ rejection of social media for information and study purposes and their preference for official platforms reinforces the significance of place. This is in the sense that, as this study has established, HBU students thrive best on campus, where they are able to access facilities and communicate with their lecturers in person, without any hindrances. Being removed from campus and studying from home greatly impacted their interaction with the university and lecturers.

However, it is interesting to note that students also mentioned that although they chose to use official university platforms rather than social media, they actually preferred social media because the costs of access were relatively low. This aligns with studies that reveal that social media preference by students is often due to social media being familiar and easier to access than university platforms (Mlambo, 2025). Other scholars who have expanded on students’ preference for social media concur with this research, showing that rural students, disadvantaged by the digital divide and from low-income households, find social media relatively easy to access and prefer using it. Van den Berg and Mudau (2022) and Ramdhani and Mandiyanto (2021) indicate that social media use is pronounced in rural areas in South Africa where students use cell phones for learning, because social media, especially WhatsApp, requires less bandwidth than official university channels, connecting young people to the university and their peers easily and relatively inexpensively. Students explained their preference for social media as follows:

*“I prefer using social media because I feel like when I receive notes on WhatsApp from my friends, they download faster than trying to log onto Blackboard” (Anonymous, non-STEM student).*

*“WhatsApp is beneficial in low network areas like where I stay, but university platforms provide a more reliable platform in terms of communicating with our lecturer” (Anonymous, non-STEM student).*

*“It is easy to communicate with lectures on social media” (Anonymous, non-STEM student).*

*“I prefer social media because the responses are fast on social media than university platforms” (Anonymous, STEM student).*

*“I prefer using social media is very convenient for me because I check my messages constantly so I do not miss any communication, unlike Blackboard that I check once in a while” (Anonymous, STEM student).*

*“I prefer using social media. It is easily accessible because it is on my phone, which I have in my hand most times. With Blackboard I need to log on using a computer, which I don't always have” (Anonymous non-STEM student).*

*“I prefer social media because it is quicker to get responses, especially from my peers on social media” (Anonymous STEM student).*

*“I prefer social media because I can receive school work on my phone on WhatsApp when I'm home since I do not have a laptop” (Anonymous, STEM student).*

From the quotes it can be seen that students prefer social media, because it is faster, more easily accessible on slow networks, and always available, since almost all students have cell phones on their person most of the time. University channels, on the other hand, take up more bandwidth and are not easily accessible on cell phones. The study finds that for communication and interaction, both university channels and social media such as WhatsApp are valuable. This is supported by scholars who have argued that the use of both social media and university platforms fosters effective

communication in online learning. Rustan (2021) also found that it is possible to improve the quality of learning by increasing the use both platforms concurrently rather than by using just one.

Besides the infrastructure for effective communication, learning skills are an important requirement for a successful experience of distanced education. Students in this study indicated that their learning skills were moderate and that their performance had not changed when they switched to distanced learning. This may be seen in Table 4.3.1.1, which shows a mode of 3 for learning skills amongst both STEM and non-STEM students. Some research has indicated a link in students' learning skills and their performance in online learning in that the level of proficiency in learning skills determines how effectively students navigate technical demands of a digital environment (Chen, 2025). Past research has indicated mixed results in terms of students' performance when they migrated from face-to-face to distanced learning. Some studies found that students' performance improved (Zheng *et al.*, 2021), while some noted a significant decrease in performance (Alarifi & Song, 2024; Spencer & Temple, 2021; Boshoff-Knoetze *et al.*, 2023). In this research, students indicate that they noticed no difference in both their learning skills and performance when they switched to distance education (mode of 3 for both).

However, when students were prompted to explain how distanced education had affected their learning, a more nuanced picture emerged. Students noted that their level of effort in online learning declined, their social interaction reduced, they procrastinated more, and some struggled with navigating official learning and communication channels because of their many resource-based barriers to distanced education. Students indicated that these challenges affected their mental health, leading to feelings of isolation, lack of motivation to study alone, and sometimes depression. The theme of mental health is a recurring one in much of the research. Rashid and Batool (2024) and Handel *et al.* (2020) noted that for students challenged by difficulties of educational access in the midst of their studies, psycho-social disturbances were common.

The results of this study have already underscored the fact that distanced education implemented during the pandemic disproportionately affected students from HBUs because they faced the added challenges of distanced education accumulating on

those already being experienced pre-pandemic (Mdiniso *et al.*, 2022). The theme of mental health and the effects of isolation and access-related frustrations reinforce the significance of place (i.e., campus) in educational attainment for rural students. Place goes beyond being an educational facility; it also acts as a buffer and a support system for students' mental health. The literature highlights similar arguments, showing that distanced education physically and psychologically isolates students from their peers, and that social environments and university structures are meant to provide psychosocial support for students (Hehir *et al.*, 2022; Calbi *et al.*, 2021; Poppe *et al.*, 2022). Hence, for rural low-income students, the sudden switch from campus-based education to distanced education ushered in widespread and sometimes severe mental health challenges (Vergunst, 2018). The abruptness of the shift coupled with limited budgets or funding of HBUs meant that such institutions as this case study were unable to offer online psychosocial services during the pandemic.

The student participants indicated that their mental health challenges were exacerbated by resource constraints such as poor network, which affected not only access to educational resources but relationships with peers. This suggests that HBU students in this study were dependent on place (campus) not only for its facilities but for psychosocial support. Some responses in this regard were:

*“Online learning means I talk to my classmates less and I feel like it limits my exposure with other students”* (Anonymous Non-STEM student).

*“Online learning makes me feel lonely and detached from my lecturers and classmates”* (Anonymous non-STEM student).

*“Studying from home frustrates me because I feel so far away from my classmates because we cannot sit and discuss things we don't understand”* (Anonymous, STEM student).

*“Talking to my friends on the phone is exhausting because we struggle with network or some do not have data so studying from home makes me feel alone”* (Anonymous Non-STEM student).

*“I miss my friends a lot when I’m studying remotely and it makes me feel lonely because we do not talk much on the phone because of poor network” (Anonymous, STEM student).*

*“Trying to learn online is exhausting because of poor network. I will be in and out of class several times and miss out on discussions in class” (Anonymous, STEM student).*

These quotes show that the removal from place (campus) caused a strain on participants’ relationships and mental health. Reinforcing the finding that HBU students depend on place for psychosocial support, previous studies note that students who had the right tools and psychosocial support at home were more successful at studying remotely, and reported a more positive experience of remote learning during the pandemic than those who lacked the tools and necessary support (Händel *et al.*, 2020; Sato *et al*, 2023).

For this reason it was interesting to find that on the contrary, some students stated that, if they had consistent electricity, internet coverage and suitable devices, they would rather study online than attend in-person classes. They indicated that studying online gave them independence. Some students said studying alone made them feel secure because they had behavioural challenges when around too many people. This is contrary to the findings of studies that reported mostly negative aspects with regard to studying alone at home, such as loss of a sense of community, anxiety and depression (Mutongoza, 2021, Mulrooney& Kelly, 2020; Li Yang, 2025).

In this study students said:

*“I have social anxiety around many people, and thinking of meeting so many new people in varsity for the first time as a first-year gave me so much anxiety. Hence shifting to online learning gave me so much relief” (Anonymous, STEM student).*

*“Studying from home makes me feel so independent because I can schedule how and when I can study in the comfort of my own home,*

*unlike on campus where I felt like I had to follow a timetable”*  
(Anonymous, non-STEM student).

Lastly, students were asked which education model (online or face-to-face) they preferred, and why. The majority indicated that they preferred face-to-face and disliked online learning. This is understandable, given the unfavourable circumstances of most of their learning environments. The majority of students were disproportionately disadvantaged by a digital divide, which encompasses not only digital resources, but also infrastructural, economic, and social factors (Mwansa *et al.*, 2025; Gunter, 2025; Fenwick & Edwards, 2019). Students expressed the following views:

*“I prefer face-to-face because it is efficient. I do not have to struggle with network to attend a class like when I’m studying online”* (Anonymous STEM student).

*“I prefer face-to-face because there are no chances of missing classes because of network”* (Anonymous non-STEM student).

*“I prefer face-to-face because it is convenient for me. I don’t have to worry about network or missing out in class”* (Anonymous non-STEM student).

*“I prefer face-to-face. I understand better in a physical class”*  
(Anonymous STEM student).

*“I prefer face-to-face because it is efficient, because it is easy to interact with lecturers and classmates, unlike online when one engages and get disconnected while talking”* (Anonymous non-STEM student).

*“I prefer face-to-face because it is convenient. I can get help on anything I do not understand immediately”* (Anonymous STEM student).

*I prefer face-to-face because at home sometimes they don’t understand that you have to attend classes you get disturbed and expected to do house chores during school hours”* (Anonymous STEM student).

*“I prefer face-to-face because I can study without disturbance”*

(Anonymous STEM student).

Participants noted that face-to-face learning was less distracting, with fewer disturbances than at home. This makes sense, considering that many students reported having no suitable space in which to study at home. Also, considering the spatial and economic challenges of the students' home locations, studying from home would have meant limited access to digital resources and decreased efficiency in their performance. The findings suggest that for the most part, HBU students are not at liberty to choose which mode of learning they would prefer, but need to attend classes physically and use campus facilities to ensure educational success.

From the findings on students, it may be concluded that distanced education, meant to assist marginalised students, became a barrier to entry for this HBU during the pandemic because of students' geographies and spatial and socio-economic backgrounds. This conclusion is supported by scholars such as Gunter (2025) and Fenwick and Edwards (2019), who pointed out that online learning (distance education) is not a universally accessible mode of learning, but is highly dependent on the resources, infrastructure and spatial arrangements available to students in their homes.

The following section discusses the findings with regard to academic staff from the selected university

#### 4.4 Participants' Socio-demographic Data (staff)

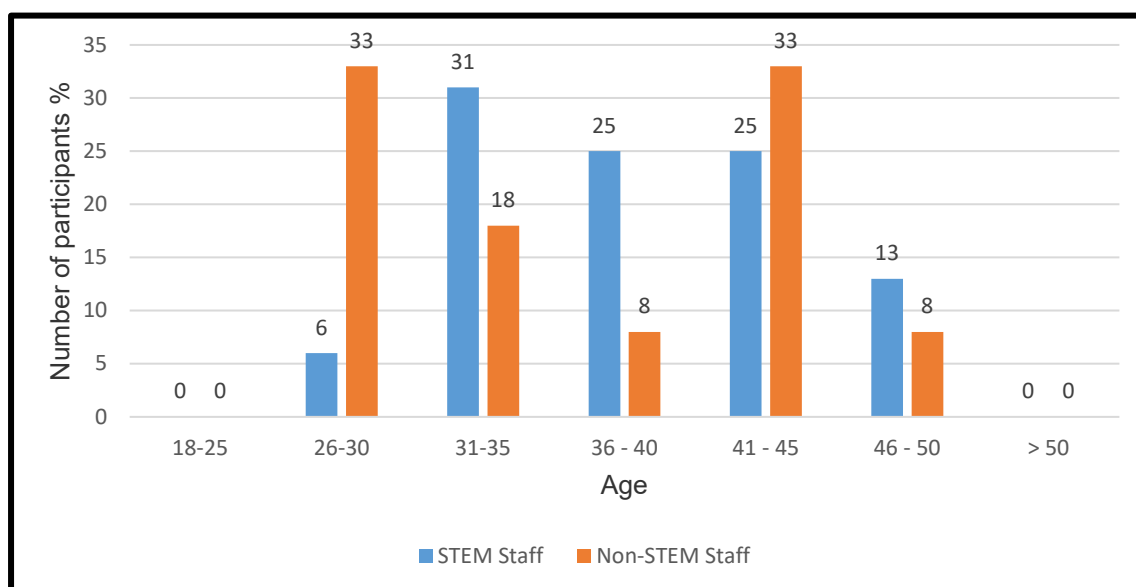


*Figure 4.4.1: Participants' age range (staff)*

As shown in Figure 4.4.1, the age distribution of staff varied across faculties. For example, in the STEM faculty, 31% of staff were in the age range of 31–35 years, followed by the age range of 36–40 years and 41–45 years, each at 25% of the sample. This suggests that most STEM staff are middle-aged, being between 30 and 45 years old.

The age distribution of non-STEM staff was slightly different. The majority of this cohort fell within the age range of 26–30 years and 41–50 years old, each at 33% of the sample. Unlike STEM staff, the majority of non-STEM staff were either on the lower end of the spectrum or at the higher end (33% each for ages 26–30 and 41–45). Neither faculty had staff below the age of 25 or over the age of 50. Although not the sole determinant, the literature shows that age affects how individuals interact with and perceive technology in education (Staddon, 2020; Williams, 2025). For this reason, age was an important factor in this research, since the research sought to explore perceptions and experiences of the academics in terms of their lecturing and other work output as they engaged in technology-based teaching during and post the

COVID-19 pandemic. Some researchers reveal a nexus between technical fluency and teaching success, with younger staff exhibiting higher technical competence and comfort with ICT tools like social media and live online teaching than older staff (Choudhary, 2025; Samifanni & Gumanit, 2021). Several studies examine age in relation to other parameters such as motivation to use technology, experience of using technology and attitude to adapting to change (Polly *et al.*, 2020; Al Gamdi & Samrji, 2016; Zamani, Esfijani, & Abdellahi Demaneh, 2016). However, age is not the only aspect that affects technological adeptness; other aspects such as gender and ethnicity may play strong roles.

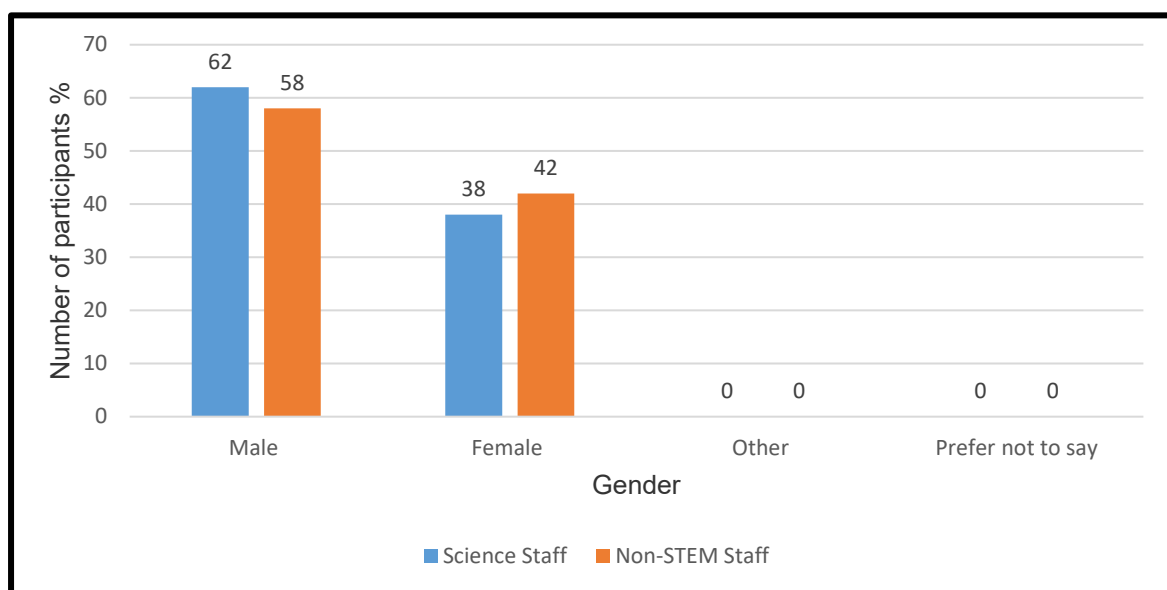


*Figure 4.4.2: Participants' genders (staff)*

Figure 4.4.2 shows the gender distribution of staff in the study. All participants indicated their gender as being either male or female. Both faculties were male dominated (62% for STEM and 58% for non-STEM), with women making up 38% and 42%, respectively. This statistic concurs with Singh *et al.* (2024) who indicate that in South African higher education, women are significantly underrepresented, making up only 43% of the workforce nationally. The literature indicates that the relationship between gender and work output is complex; at the same time, there appear to be no significant gendered differences in output in distanced education (Şahin & Şahin, 2022).

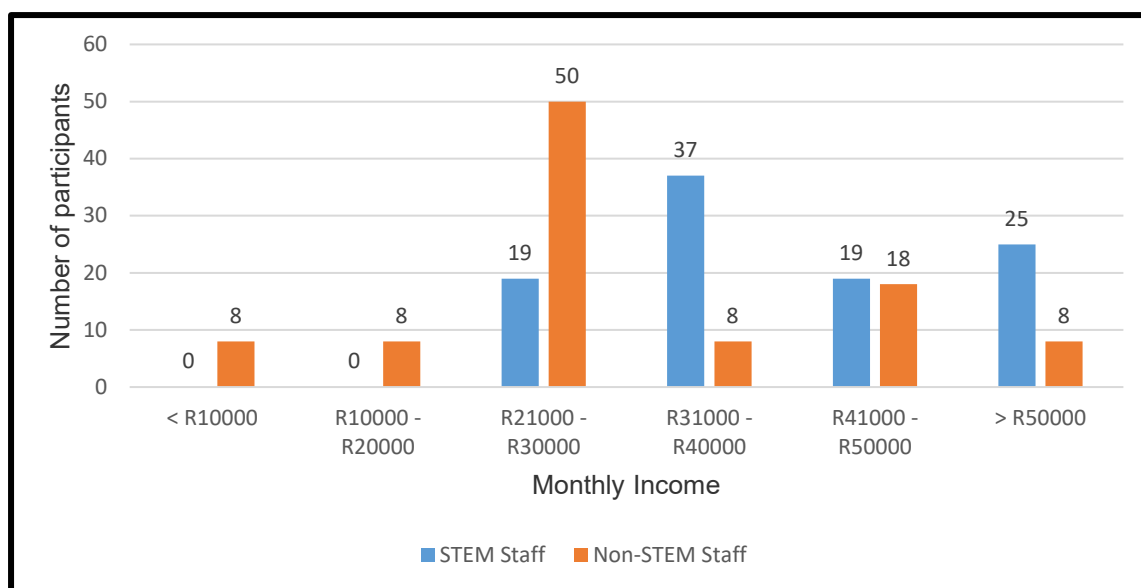


*Figure 4.4.3: Participants' household monthly incomes (staff)*

Figure 4.4.3 indicates that monthly incomes were quite diverse across the faculties. The majority of STEM staff (37%) had an income of between R31 000 and R40 000, while 25% had an income of over R50 000. The minimum monthly income for STEM academic staff was R21 000. On the other hand, non-STEM staff appeared to have monthly incomes spread across all categories, with half having incomes of between R21 000 and R30 000. This is less than the majority monthly income for STEM staff. Relatively few non-STEM staff had an income of over R50 000. Another variance is the fact that non-STEM staff had incomes that went as low as under R10 000, whereas the lowest for STEM staff was R21 000. However, it is notable that in both faculties, the percentage of staff that had incomes of between R41 000 and R50 000 were similar (19% and 18% for STEM and non-STEM, respectively).

Monthly income is significant in this research because the research sought to assess how socio-economic backgrounds affected participants' perceptions and experiences of online learning during and post-COVID-19. Socio-economic backgrounds affect access to digital platforms and other work outputs for lecturers. For example, Mahlaba and Mentz (2023) indicated that while lecturers received monthly data from the universities for internet access, some said it was not enough to keep their online teaching activities going for the whole month, and they had to pay for the shortfall from their own pockets. Similar views emerged in this research, with lecturers stating that they had to supplement the university-provided Wi-Fi bundles with their own.

Socio-economic and spatial backgrounds played a role in shaping the experiences and perceptions of the HBU staff in distanced education. Figure 4.4.4 shows the home locations of the HBU staff members.

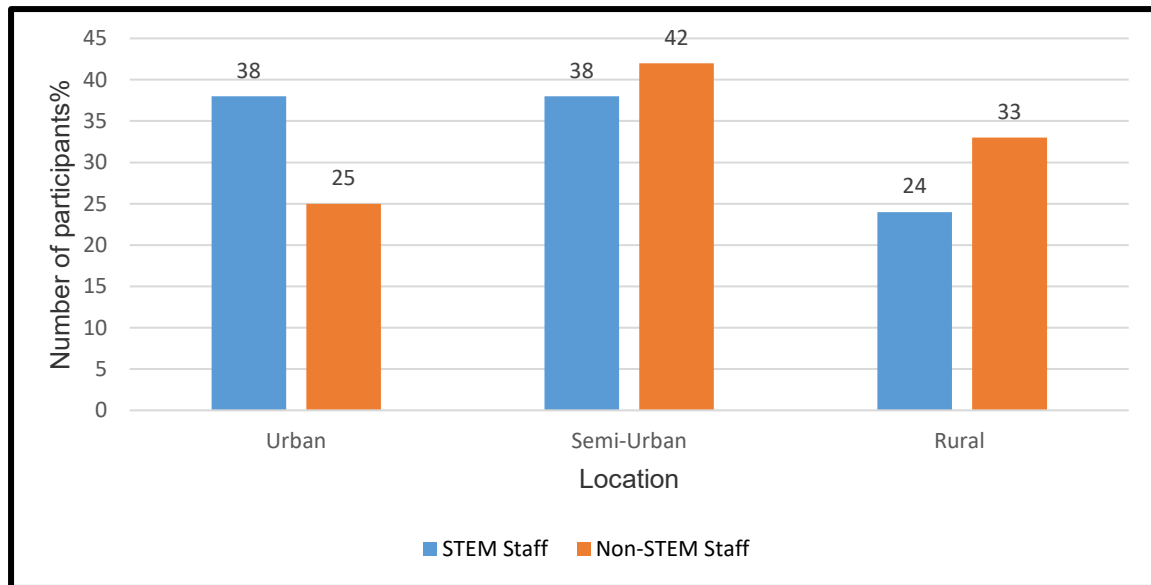


*Figure 4.4.4: Participants' home locations (staff)*

As may be seen in Figure 4.4.4, STEM staff participants resided mostly in urban (38%) and semi-urban (38%) locations, while non-STEM staff resided mostly in semi-urban (42%) or rural (33%) locations. The preference for urban living amongst STEM staff may have been related to their overall higher salaries, as a higher number of STEM staff than non-STEM staff earned over R50,000 a month (see Figure 4.4.3). The home locations of the staff affected their experiences of being removed from place- and space-bound teaching and other place-related activities. Cox (2019) noted that the environment of a neighbourhood can affect the focus, productivity, and general wellbeing of employees working from home – in this case, academic staff teaching from home. Some scholars note that urban areas frequently suffer from noise pollution from traffic, construction or neighbours, which can cause distractions for employees working from home (Tleuken *et al.*, 2022).

As among the students, the location of academic staff's homes was significant, as it affected access to the infrastructure necessary for online teaching. Research has indicated that in South Africa, digital inequalities are largely based on spatial background, with rural individuals more likely to be underserved by inadequate ICT

infrastructure than their urban counterparts (Duma *et al.*, 2021; World Bank, 2020; Gunter, 2025; Mahlaba & Mentz, 2023). Hence staff who reside in rural communities may be both geographically isolated and digitally isolated, with poor internet connections, leaving them unable to fully carry out their online teaching duties (Dube, 2020). This research results also show that post-pandemic, academic staff at this HBU carried out minimal work online (see Table 4.4.1.1 on page 100). This concurs with previous scholars who indicate that the uptake of remote-working in rural areas is relatively low (Davies, 2021; Mhandu *et al.*, 2021).

The findings therefore reinforce the significance of socio-material assemblage in distanced education, as stated in the conceptual framework. Carroll (2018) and Gunter *et al.* (2020) noted that socio-economic assemblage in place (in this case, internet connectivity in staff's homes) influences the experience of distance education.

Another spatial characteristic affecting staff's ability to work well during the pandemic was distance from campus. Figure 4.4.5 shows the spatial distribution of HBU staff's home locations relative to the university.

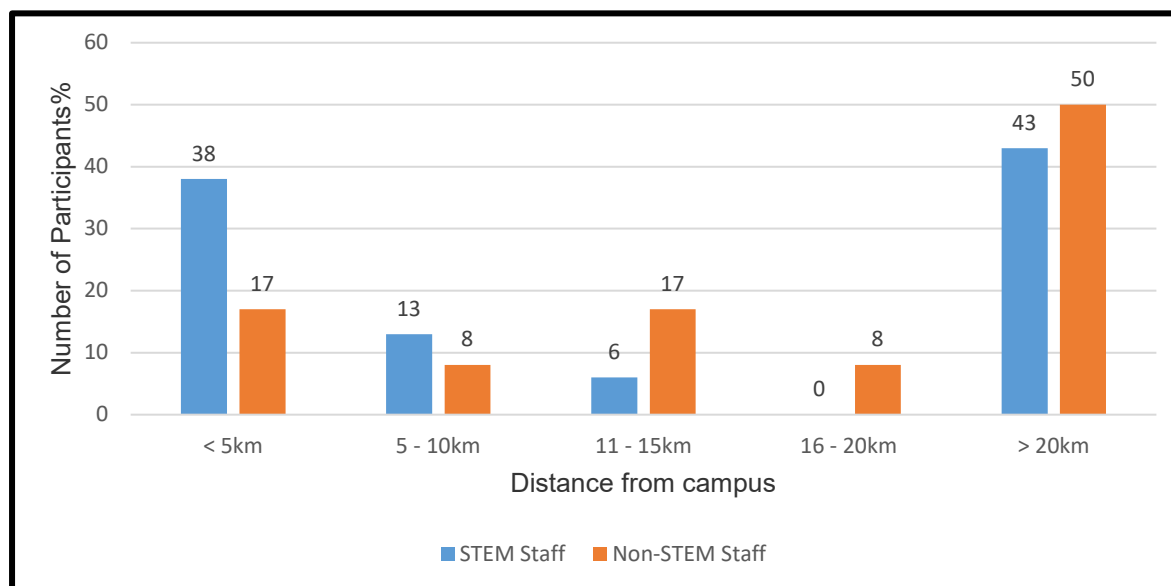


*Figure 4.4.5: Participant distance from campus (staff)*

As shown in Figure 4.4.5, the majority of both STEM and non-STEM academic staff lived more than 20 km away from campus (43% and 50%, respectively). Non-STEM staff's residences were more spread out across the middle distances than those of

STEM staff, with the highest proportion of non-STEM staff living more than 20 km away.

Distance from campus is significant because of issues to do with access to campus for place-bound activities. The effect of the digital divide on distanced education in marginalised communities has already been raised in this research. The divide was evident in this finding, suggesting that staff living in rural communities would have to commute to campus to access reliable internet. This goes beyond the removal of staff from campus during hard lockdown, even at present where the HBU engages in blended teaching (UFH, 2024). The finding suggests that distance from campus may be a determinant in staff's preference for working from campus or from home.

#### 4.4.1 *The enablers of Distanced Education in the context of academic staff from HBUs*

Table 1.4.1.1: Summary of participants' educational experiences and preferences in distanced teaching (academic staff)

|                                          | Scale                                                                                  | Mode<br>(STEM Staff) | Mode<br>(STEM non-Staff) |
|------------------------------------------|----------------------------------------------------------------------------------------|----------------------|--------------------------|
| Online work experience pre-pandemic      | Never = 1<br>Rarely = 2<br>Sometimes= 3<br>Often = 4<br>Always = 5                     | 1                    | 1                        |
| Online work experience post-pandemic     | Never = 1<br>Rarely = 2<br>Sometimes= 3<br>Often = 4<br>Always = 5                     | 2                    | 3                        |
| Work-related remote work activities done | Meetings= 1<br>Lectures= 2<br>Tests= 3<br>Assignments= 4<br>Other = 5                  | 1                    | 1                        |
| Workspace availability                   | Strongly disagree = 1<br>Disagree = 2<br>Neutral= 3<br>Agree = 4<br>Strongly agree = 5 | 2                    | 3                        |
| Internet availability                    | Yes = 1<br>No = 2                                                                      | 1                    | 1                        |
| Internet connection stability            | Very poor = 1<br>Poor = 2<br>Moderate = 3<br>Good = 4<br>Very good = 5                 | 2                    | 3                        |
| Electricity availability                 | Yes = 1<br>No = 2                                                                      | 1                    | 1                        |
| Electricity stability                    | Very poor = 1<br>Poor = 2<br>Moderate = 3<br>Good = 4<br>Very good = 5                 | 4                    | 4                        |
| Lecturer–student interactions            | Very poor =1<br>Poor = 2<br>Moderate = 3<br>Good = 4<br>Very good = 5                  | 3                    | 3                        |

|                                                                   |                                                                                                                        |   |   |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---|---|
| Social media use by students                                      | Never = 1<br>Rarely = 2<br>Sometimes= 3<br>Often= 4<br>Always = 5                                                      | 3 | 3 |
| Most used platform: social media vs official university platforms | Social media = 1<br>Official university platforms= 2                                                                   | 1 | 1 |
| Online teaching skills                                            | Very poor = 1<br>Poor = 2<br>Moderate = 3<br>Good = 4<br>Very good = 5                                                 | 3 | 4 |
| Students' performance in online classes                           | Greatly deteriorated= 1<br>Slightly deteriorated= 2<br>No difference= 3<br>Slightly improved= 4<br>Greatly improved= 5 | 2 | 3 |

Table 4.4.1.1 shows staff's responses to slightly different variables than those shown in Table 4.3.1.1 for students. It shows that the majority of non-STEM staff had never experienced teaching remotely before the pandemic, while STEM staff 'rarely' experience it, as indicated in the modes 1 and 2, respectively. This suggests that, like the students, staff had to adapt rapidly, especially at the start of the COVID-19 when restrictions were very strict (Cranfield *et al.*, 2021; Mncube *et al.*, 2021). Some studies on pre-COVID-19 exposure to online learning indicate that lecturers who previously did not have any experience using technology to teach found the sudden switch to digital technologies a considerable barrier in implementing online teaching. Such academics generally showed resistance or negative attitudes towards educational technology integration (Kaqinari, 2023). Resistance to technological integration would have a significant impact on work output in distanced education.

However, spatial factors need to be considered to understand why academic staff in this study lacked exposure to distanced education, which led to this resistance. The research shows that the majority of HBU staff resided in rural communities, which would have automatically precluded them from engaging much with distanced education pre-COVID-19, based on other findings in the current research about the unavailability of network in rural areas.

To understand staff's experience and the knock-on effects of being removed from space-bound activities, this study asked the academics about three aspects of output: the challenges associated with the change in pedagogy (Mncube *et al.*, 2021); the technical challenges of using digital tools (Dube, 2020; Maphalala & Adigum, 2020); and the extent to which these factors impacted their quality of teaching (Miner-Romanoff *et al.*, 2019).

#### 4.4.2 Challenges in the change of pedagogy

Post-pandemic, the HBU has implemented blended teaching (UFH, 2024), but the majority of the non-STEM staff said that they rarely taught or engaged in any other work-related activities remotely (mode = 2 in Table 4.4.1.1). This could indicate many things, but, bearing in mind that most staff had no pre-pandemic experience with distanced education, it probably indicates that they did not enjoy the changes associated with working remotely. This concurs with studies showing that academic staff who had not implemented online teaching pre-pandemic resisted online teaching post-COVID-19 (Lloyd, McCoy & Byrne, 2012; Mahlaba & Mentz, 2023). The research has already suggested that the resistance could be due to spatial factors that caused a lack of pre-pandemic exposure (Tsoka & Kriek, 2023; Gunter, 2025; Azionya & Nhedzi, 2021). Some studies argue that the resistance was a result of the abruptness of the switch and the lack of time to prepare and train in how to use digital platforms optimally (Mthethwa & Luthuli, 2021). A wealth of research has indicated that because of the lack of training, most university lecturers were too inexperienced and insecure to use technology well in distanced teaching (Watermeyer *et al.*, 2020, Mahlaba & Mentz, 2023; Moser *et al.*, 2021; Taghizadeh & Amirkhani, 2022).

STEM staff, on the other hand, indicated that they occasionally taught or engaged in other work-related activities remotely post-pandemic (mode = 3). Since it has been established that STEM staff had 'rarely' experienced online teaching pre-COVID-19 (i.e. they had some, albeit minimal, experience of it), it makes sense that they were slightly better adapted to online environments and more comfortable carrying out online work post-COVID-19. This concurs with findings by other researchers that pre-pandemic exposure may ease online teaching post-pandemic (Lloyd, McCoy & Byrne 2012; Mahlaba & Mentz, 2023). Some studies, however, argued that STEM academics

show less resistance to distanced education because their courses require hands-on activities and practical application, which are challenging to replicate online, while non-STEM subjects are more easily adapted to digital learning environments (Brancaccio-Taras *et al.*, 2021; de Silva & Wickramasinghe, 2022). In other words, STEM staff are less likely than non-STEM staff to have to engage in online teaching, and therefore encounter fewer challenges with it. This is contrary to the current findings, which reveal that STEM staff were more willing to teach online than their non-STEM counterparts.

Although teaching is at the core of academics' work output, HBU staff indicated they occasionally conducted other work-related tasks online, such as attending meetings (mode = 1 in Table 4.4.1.1). This may be evidence of the above argument that they resisted online/remote working owing to lack of training in the use of digital technology specifically for teaching; other activities, like meetings, may require less technical expertise than online teaching and hence the decision to use this modality for meetings (Canals & Al-Rawashdeh, 2019; Taghizadeh & Yourdshahi, 2020). This is substantiated by the fact that non-STEM staff indicated that their online teaching skills were average or moderate (mode = 3) while STEM staff rated their online skills as good (mode = 4). This could suggest that non-STEM staff's poor technical knowledge exacerbated their resistance to switching to teaching online (Mahlaba & Mentz, 2023).

While the study showed that the majority of the academic staff in both faculties did not conduct many activities online post-COVID-19, for who did, the study sought to assess the changes they had experienced in their post-pandemic educational interaction with students. Table 4.4.11. shows that post-pandemic, both STEM and non-STEM staff rated their interactions with students at 3, which is moderate. They also reported that students never used social media as a way to communicate with them. Students mostly used official university platforms. This was confirmed by the students, as noted in relation to Table 4.3.1.1. One might have expected students to use social media to communicate with their lecturers, as the HBU staff were not of an older age, but mostly middle-aged or young (see Figure 4.4.1). Studies have indicated an inclination by younger academics to use social media integration in their work as they are more comfortable than older generations with the use of social media (Chan & Lee, 2023; Ameen *at al.*, 2023; Jaffer *et al.*, 2023). This research has already noted that social media can be beneficial and lead to better engagement between staff and students in

poor-network communities such as this HBU in Alice (Bozkurt, 2023; Madge *et al.*, 2019; Mphuthi, Ngoveni & Mphahlele, 2025). The implication is that if staff in this HBU were willing to integrate social media into their teaching and work-related activities, their interaction with their students could move from moderate to good.

Besides communication, changes in teaching methods were noted by staff. Table 4.4.2.1 lists the differences between online and face-to-face teaching and their effects on lecturers, from the perspective of the academic staff in this study.

*Table 4.4.2.1: Emerging themes from staff experiences*

| <b>Noticeable differences in online vs face-to-face teaching</b> | <b>Effects of the changes from face-to-face to online teaching</b> |
|------------------------------------------------------------------|--------------------------------------------------------------------|
| Decline in participation levels                                  | Increased assessment difficulties                                  |
| Increased resource needs                                         | Decline in teaching effectiveness                                  |
| Lack of engagement                                               | Increase in communication challenges                               |
| Increase in distractions                                         | Decreased student engagement                                       |
| Decline in academic integrity                                    | Challenges in technology integration                               |
| Decrease in teaching effectiveness                               | Challenges in demonstrating practical aspects                      |
|                                                                  | Increased workload                                                 |
|                                                                  | Supplementing existing methods                                     |

Based on the findings shown in Table 4.4.2.1, staff were asked first about participation levels:

*“In online classes, some students do not listen attentively and some just log in and mute the whole class session. Hence it is difficult to give group discussions in an online class”* (Anonymous, STEM staff).

*“It’s difficult to get students to participate online because they complain of poor network from their homes”* (Anonymous, STEM staff).

*“There is more participation from students in face-to-face classes than online, and I can also read their body language and see if they follow or*

*not. Online they do not engage, even when I ask a question they will keep quiet” (Anonymous, non-STEM staff).*

*“Less participation from students when I am teaching online” (Anonymous, non-STEM staff).*

The theme of lack of engagement was closely related to the theme of participation. The academics said:

*“Online, students tend to be less interactive, often facing connectivity issues or distractions and some have admitted to just logging on and sleeping, knowing they cannot be seen, whereas in a physical class it is difficult for students to disengage unnoticed as attendance and participation is more evident” (Anonymous non-STEM staff).*

*“When the lecture is online, students do not actively participate or interact in class than how they would under face-to-face. In online classes they log in and mute” (Anonymous STEM staff).*

*“Engaging with students is a challenge when online because sometimes it’s either my network or their network is [too] poor to have discussions in a synchronous class” (Anonymous non-STEM staff).*

*“There is poor engagement in online classes and sometimes it’s also affected by poor attendance, where there are a few students in each class” (Anonymous non-STEM staff).*

Students’ lack of engagement may be due to poor network, as discussed earlier in this research (Cullinan *et al.*, 2021; Woldegiorgis, 2021; Ndzinisa & Dlamini, 2021). Lack of ability to participate has been a recurring theme in this study, and was confirmed by the academic staff. The quotes above imply that participation and engagement are a big part of successful teaching; however, participation and engagement online are highly dependent on students’ ability to access online classes. This study has already indicated that students in this HBU are disproportionately disadvantaged by the digital divide, which leaves many with poor access, and where they do have access, the network may be too weak to support prolonged engagement (Azionya & Nhedzi, 2021;

Mngomezulu & Ndlovu, 2013; Mutongoza, 2021; Mncube, 2023). These results concur with Fang *et al.* (2023), who identify a 'causal chain' between staffs' teaching success and students' digital access.

However, staff noted that a lack of participation on the part of students is sometimes a result of other factors such as logging on and sleeping or muting. Such behaviour by students could be regarded as a lack of academic integrity. Bozok (2023) concurs, stating that logging on and muting in an online class leads to a lack of engagement and participation, which could be an indirect violation of academic integrity.

Academic integrity was a theme highlighted in different ways by academic staff in relation to the changes in pedagogy brought about by distanced education. Apart from poor participation, staff reported that students cheated during online assessments by looking up answers or sharing opinions through social media because they knew they were not under surveillance in an online environment. This was said to be more prominent at the start of online teaching and learning when the lockdowns began than currently, with the blended learning approach. The academics said:

*"I noticed high rates of plagiarism and use of AI tools when I mark students' work that they do online"* (Anonymous STEM staff).

*"Students cheat a lot in online tests and monitoring cheating in tests in an online setup is tiring"* (Anonymous non-STEM staff).

*"Online tests become ineffective because I feel like it encourages copying by students"* (Anonymous STEM staff).

*"It's very noticeable how students cheat and share answers when writing tests online"* (Anonymous STEM staff).

*"I have marked several tests where the similarity was so much, showing the level of cheating in online environments"* (Anonymous non-STEM staff).

*“There is much more cheating in online tests than face-to-face. It’s noticeable when marking if students looked up answers online while writing”* (Anonymous non-STEM staff).

These responses show that academic integrity was being violated by students in online settings (Janke *et al.*, 2021; Davies, 2023; Van Eck, 2023). Researchers note the many prevention strategies and countermeasures used by universities to try to uphold academic integrity (Alessio *et al.*, 2017; Han *et al.*, 2023; Novick *et al.*, 2022). These include camera systems that surveil students while they are writing online tests and software that disables some features such as copy and paste, or blocks the use of unauthorised websites during exams (Novick *et al.*, 2023). However, these do not apply in HBU contexts. This research has indicated that HBUs are underfunded (Ilora, 2006; Mdiya, 2020; Purnell, 2022; Frola *et al.*, 2024), and that when COVID-19 lockdowns started, many HBUs, including the case study university, were under-prepared and under-resourced with the technologies needed for distanced education (Hendricks & Mutongoza, 2023; Mlambo *et al.*, 2023). This highlights that for HBUs, the lack of technological resources that they should have been ‘incubating’ pre-pandemic, although not required with the use of on-campus facilities, was exposed by the removal from place during the pandemic. HBUs were affected by this exposure because they were unable to implement countermeasures to deal with cheating in online exams.

Academic staff reported that cheating behaviours made self-assessment as lecturers extremely difficult, as they were unable to determine the success of their online teaching methods:

*“It is difficult to tell whether students are genuinely performing well in online classes than [in] physical classes because it may be just that students are able to cheat in online settings”* (Anonymous non-STEM staff).

*“Student cheating sometimes gives me a false sense that students are doing well yet it may be just students cheating the system”* (Anonymous STEM staff).

*“Plagiarism and the use of AI in test situations defeats the purpose of determining if students are understanding what I’m teaching or not”*

(Anonymous non-STEM staff).

These sentiments concur with views expressed by scholars who state that dishonesty in online environments is a result of a lack of monitoring and structures to curb such behaviours (Verhoef & Coaster, 2021; Maravanyika, 2022). This lack is evident in the current study, as the HBU did not have the resources required to monitor such behaviours. Several researchers reported that academic staff tend to find online teaching less effective than conventional face-to-face teaching (Simamora *et al.*, 2020; Hattar *et al.*, 2021; Burns *et al.*, 2020).

Most lecturers felt that the switch to online learning increased their workload, requiring them to spend more time on the computer than they had spent with face-to-face teaching. This theme also emerged when the academics reported that students seemed to expect them to be available 24/7 in the online environment. Mahlaba and Mentz (2023) report the same sentiments among academics. However, some academics saw this ‘extra work’ in a different light; one felt that online teaching supplemented their teaching quite well:

*“Online teaching has made my approach more dynamic and adaptable as I tailor methods to suit different groups of students. It pushes me to continually learn new tools to become more comfortable with technology and implement non-traditional tools like social media to make sure that I increase student engagement in my teaching as much as I can”*

(Anonymous non-STEM staff).

#### 4.4.3 Technical challenges in online teaching

By its nature, online teaching relies on technical knowledge and suitable physical arrangements in order to run smoothly. Table 4.4.1.1 showed that most STEM staff lacked space at home to teach without disturbance, while non-STEM staff were neutral about having a workspace at home (mode = 3). This is an expected finding in light of the fact that STEM staff resided mostly in urban or semi-urban homes, (see Figure 4.4.4), where literature has indicated that urban dwellers have limited spaces at home

and often suffer from noise pollution from traffic, construction or neighbors, which can cause distractions for employees working from home (Tleuken *et al.*, 2022). Thus, as STEM academics explained:

*“It is frustrating being away from campus because there are a lot of obstructions to progress because sometimes you fail to find moments of silence to work properly at home or there are technology glitches. It’s a lot.”* (Anonymous STEM staff).

*“There is not enough space to work effectively from home”* (Anonymous STEM staff).

*“It’s difficult to work from home because there is no space to work in isolation”* (Anonymous STEM staff).

The finding is less surprising when one considers that urban homes tend to be limited in space while rural homes tend to be more expansive, owing to the presence of more available land (FAO, 2011; Parsons, 2024). This explains why STEM staff, living mostly in urban and semi-urban homes, were less likely to find sufficient dedicated space for working.

Besides space, a sound internet connection is the ‘lifeblood’ of any online class (Bahinting *et al.*, 2022). Table 4.4.1.1 indicated that all staff had internet connections at home, but complained of their connections being weak. This research found that the majority of this HBU’s staff either resided in rural or semi-urban communities. The literature shows that academic staff at HBUs suffer from the same conditions as their students, particularly limited access to reliable internet connectivity owing to their geographic location (rural vs urban), which contributes to a persistent digital divide (Gunter, 2025; Mhlana, Denhere & Moloi, 2022). Hence being removed from place (campus) meant that, like their students, the HBU academics were often unable to achieve their work output targets.

Monthly funds for data were provided by the university but had to be supplemented by the lecturers as the amount was insufficient to purchase data for the entire month. Although this shows that the university played a significant role by assisting academics

in this way, having to purchase data still placed a financial burden on staff, as studies have indicated that South Africa ranks very high in data costs relative to average income in Africa, further widening the digital divide for staff living in areas without affordable sources of connectivity like fibre-to-home connections (Wi-Fi) (Kesler, 2019; Gumede & Badriparsad, 2021; Muthuprasad *et al.*, 2020). The findings reinforce the fact that staff were and still are dependent on on-campus facilities, as it is cheaper and more convenient to work from campus than from home. These factors explain most academic staff's reluctance to work from home once the COVID-19 pandemic ended.

Although in general, lecturers' perceptions of the technical challenges and changes in pedagogy that came with shifting from face-to-face to online and then to blended education were skewed towards the negative, some academics found that working remotely worked well for them. They stated that despite the digital constraints, it was convenient to be at home and work during flexible hours. This resonates with studies that note that some academics in technically challenged areas use available 'low-tech' digital platforms to communicate and disseminate study material to students, and are still able reach their goals while working remotely (Rwodzi & De Jager, 2021).

#### *4.4.4 Implications of distanced teaching on work output*

This research found that detachment from place-bound teaching created challenges in terms of the quality of work output among academic staff at this HBU. Staff complained they had difficulties in accessing and communicating with their students when the latter were off-campus because so many of the students lacked internet connections in their homes (Gunter, 2025; Mhlanga, Denhere & Moloi, 2022). This meant that students often submitted work late, if at all. The theme of late submissions affecting academics' own performance was expressed in different ways:

*"I always have to deal with students submitting their work late and because deadlines are constantly not met by students and it affects my time and planning"* (Anonymous STEM staff).

*"Students often complain of poor network at home that makes them miss tests or assignments; hence I constantly have to push deadlines forward"*

*to try to accommodate them but that puts pressure on me reaching my work targets”* (Anonymous non-STEM staff).

*“Students often submit their work late and it slows me down”*  
(Anonymous STEM staff).

Besides late submissions compromising academics’ time and planning, the staff at this HBU stated that late submissions created more work for them. Staff mentioned that they sometimes had to reset tests or assignments over and over to cater for students who missed tests and assignment deadlines. This highlighted a theme that academics referred to a lot: that distanced education increased their workload. Some staff said:

*“Working online creates more work because students miss a lot of tests or assignments, sometimes due to factors beyond them like, load shedding or poor network, so there is a lot of re-doing work trying to cater for those students”* (Anonymous STEM staff).

*“When I work from home I find myself working beyond the working hours I would normally work when I have set times of going to the office and knocking off, because I will be trying to catch up with a lot of work that comes with teaching online.”* (Anonymous non-STEM staff).

*“I cannot carry out practical experiments online; hence I have to think and carry out other ways of supplementing for the lack of practical work for my students, and it is a lot of work.”* (Anonymous STEM staff).

This finding aligns with the literature indicating that in online teaching and learning, academics are expected to cover the same learning outcomes as in traditional face-to-face classes. This causes considerable extra work for the academics, as they have to digitise their content and in some cases change their teaching methods by adding more content in order to effectively communicate their material on digital platforms (Willet & He, 2023; Mosleh *et al.*, 2022). Several authors also point out that the shift to distanced education does not consider the additional time required to develop online material, which can leave lecturers feeling overwhelmed with work. Lecturers tend to overwork when teaching online (Simamora *et al.*, 2020; Al Gamdi & Samrji,

2016; Bozkurt *et al.*, 2020). The extra workload comes on top of struggles with the technical and space-related challenges mentioned above. This means that academic staff in HBUs carry an extra burden when shifting from face-to-face to online and eventually blended education, as has been the case for this HBU.

A prominent theme highlighted by academics was that the increased workload led to burnouts. Like the students, they mentioned that the shift had affected their mental health (Mosleh *et al.*, 2022; Kita *et al.*, 2022; Fynn, 2022).

In addition, the majority of academic staff noted a slight deterioration in their students' performance since the shift to distanced education, suggesting that distanced education had a negative impact on this HBU. On the other hand, a few academics stated that they had noticed improvement in their students' performance. This anomaly was explained when they indicated that the improvements were probably a result of cheating, a factor discussed under the theme of academic integrity. Academics stated that despite individual success noted in some students, the quality of the work from students was low.

This research highlights several factors that could explain the majority of students' low performance. As noted, the removal from campus and campus-based facilities meant that students were mostly cut off from reliable internet and therefore unable to conduct research or even access course notes when they needed them. Coming from low-income homes, most could not afford all the digital tools required to study from home. In summary, these students were on the disadvantaged side of the digital divide, being mostly unable to access quality education when the institution shifted from face-to-face to online and eventually to blended education. All these factors may have contributed to students' low academic performance.

However, staff noted that sometimes students' poor performance was not a result of the technical and spatial barriers noted above. They noted that sometimes it was simply because students were insufficiently motivated and disciplined to study online without external drivers such as lecturers. This observation resonates with studies that also identify students' own attitudes and behaviour as a contributor to poor academic performance (Kearney *et al.*, 2022; Keppens, 2023).

#### **4.5 Adaptation Strategies for Distanced Teaching**

The researcher was interested in the adaptation strategies devised by HBU academics to meet the demands of online teaching and learning, both during the COVID-19 pandemic and post pandemic, with hybrid learning having become the norm. As noted in the methodology, HBU staff are currently using a blended approach to teaching and learning. The researcher was interested in strategies still being used by staff members to overcome the problem of physical distance between them and the university when working from home. The themes that emerged centered on improving communication, developing teamwork among students and using different tools and strategies to maintain a productive learning environment despite the physical distance.

One of the most recurring themes in academic staff's responses to questions the problem of physical distance between them and the university when working from home was lack of participation and engagement by students. To overcome this, academics used interactive learning as a strategy, mostly in the form of discussions. The literature reveals that interactive learning shifts the focus of the learning environment from the lecturer to the students, with students engaging in communication with their peers and the lecturer, and all parties contributing equally to the conversation (Mohan, 2024). This is said to bridge the gap left by the geographical distance between students and their lecturers and it makes students feel 'connected' with their peers or lecturers while reducing feelings of isolation in online environments (Chen, 2023)

However, the question arises as to the effectiveness of the strategy, given that most students struggle to attend synchronous classes because of poor internet coverage in their homes (Cullinan *et al.*, 2021; Woldegiorgis, 2021; Ndzinisa & Dlamini, 2021). Some studies indicate that some academics use low bandwidth platforms such as WhatsApp to teach interactively in order to accommodate students with poor networks (Venturino & Hsu, 2022). However, this was unlikely to have been a satisfactory method of engaging in class discussions, especially since, as noted by both students and staff, social media was not used to carry out teaching and learning activities.

Academics also indicated that they set short tasks during class where students had to give feedback to peers and award marks for their contributions to encourage active

participation. Some mentioned setting tasks before class, asking students to prepare short presentations which they delivered in class. Short spot tests were also mentioned as a strategy to encourage the active participation of students. However, giving students tasks to encourage participation depended on students' willingness to participate. Some staff noted that students almost always gave the excuse of having technical problems (which do occur and are a valid reason for non-participation, in many cases, though possibly not all). Some staff members said:

*"It's very difficult to get students to participate and the sad thing is no matter the strategy, you cannot force them if they do not want"*  
(Anonymous, STEM staff).

*"We have often come up with measures to get students to engage in class but most times they do not, and in online classes they can just mute and keep quiet. There is little one can do"* (Anonymous, non-STEM staff).

Figure 4.4.6 shows a word cloud indicating the strategies that occurred most often in the academic staff's responses to the question of strategies they used to enhance participation.

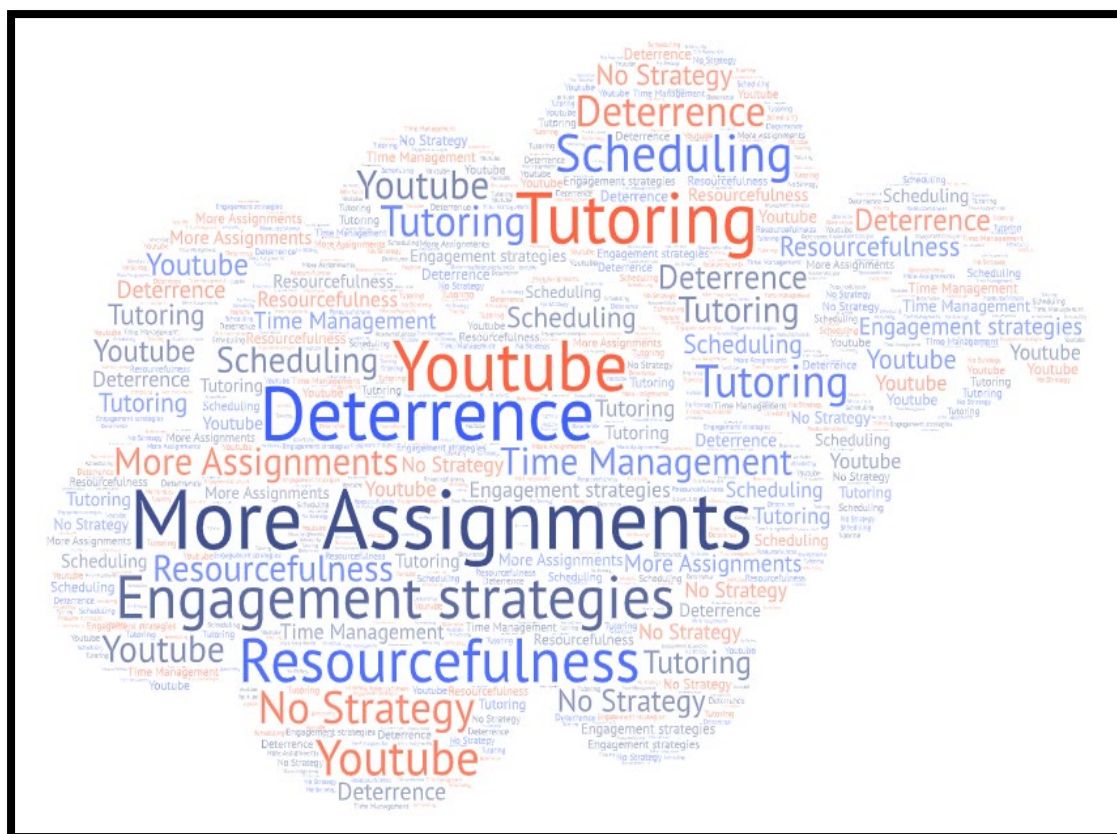


*Figure 4.4.6: Word cloud: Online teaching strategies devised by staff*

As may be seen in Figure 16, deterrence emerged as a theme under communication, in that staff tried to deter students from being passive in class by awarding marks for those that participated. Support systems were another frequently occurring theme, in that the lecturers used support systems like tutors (a form of peer-to-peer teaching) to help students understand concepts better. This strategy was implemented because lecturers recognized the challenges faced by students in online learning and felt they had to come up with a strategy that would help them understand concepts they may have missed during class because this study has already established that students in this HBU missed many classes due to technical challenges emerged as a theme. An example of this was the fact that lecturers used their personal data to supplement the university-provided data.

STEM staff indicated that with online learning they had to give students more assignments to do than usual to make up for inability to conduct practicals. Some mentioned that they used online resources like YouTube videos that demonstrated the practicals, which gave students some understanding of how the theories applied in

real-life settings. Some indicated that they had to come up with time-management practices, such as creating a schedule allocating specific times for work-related tasks. A small minority indicated that they had no particular strategies since they currently did not work from home.

Lastly, staff were asked about their preferred mode of teaching, whether online or face-to-face. The responses were clear: most academics preferred face-to-face, with a few suggesting that blended was ideal. The reasons for preferring face-to-face mostly had to do with the challenges already discussed, such as poor or no internet coverage among students, academic dishonesty and poor engagement and participation. Those who favoured some measure of online teaching cited flexibility, in that they worked at hours that suited them best in the comfort of their homes. Scalability also came up as an advantage of online classes, since online teaching allows large groups of students to be accommodated in one session, whereas with face-to-face teaching one would need to split the class and teach in different sessions. Those who suggested a blended approach mentioned that a combination of methods allowed lecturers to optimize the strengths of both, which conferred many benefits, both to themselves and to their students.

#### **4.6 The Role of Varying Spatial and Socio-Economic Backgrounds in Students' and Academic Staff's Experiences**

The research sought to assess the role of varying spatial and socio-economic backgrounds and factors on the perceptions and experiences of HBU students and academics both during and post-COVID-19. This is significant, since global statistics show the disproportionate impact of the virus economically, socially and spatially on the poor (United Nations, 2020). This research has confirmed the findings of various researchers who show that students from low-income households are vulnerable in distanced education settings in that they have limited access to digital devices, which affects their educational perception and experience (Aruleba & Jere, 2022). It has been established in this research that the majority of HBU students lived in rural households (see Figure 4.3.4). Staff, too, lived in rural or semi-urban households, as shown in Figure 4.4.4).

Location affected staff and students' experiences, since rural areas by nature are disadvantaged in technology and infrastructure (Duma *et al*, 2021). Rural areas often lack access to high-speed internet owing to inadequate internet infrastructure (Aruleba & Jere, 2022). Evidence from this research shows that the students from households in rural areas mostly had poor internet coverage. Many students complained of lack of access to high-speed internet when studying from home, which resulted in late submission of assignments, inability to attend some online classes and missing important communications from their lecturers. Some students also indicated that being removed from place (campus) and having no internet coverage at home, they were compelled to commute to the nearest internet café to access the internet. This naturally incurred costs. This revealed the significance of the socio-material assemblage and the role of place in distanced education.

Although rural homes are expansive in their overall layout, the living area may be small and students were affected by distractions than in comparable homes in urban areas. This was partly because in rural environments students bore more household responsibilities such as farming and taking care of animals and siblings (Matabane & Seo, 2022; Afolabi & Ajani, 2023). This suggested that HBU students studying from home in rural areas are more likely than their urban counterparts to fall behind because of the limited time they have to study. Agricultural and household responsibilities may be added to all of the other infrastructural and economic disadvantages experienced by rural students already noted in this study.

The research has already noted that when studying from home, students were often unable to join online classes owing to poor network coverage in their homes. Poor ICT infrastructure is a characteristic of rural households in South Africa (Ngoepe *et al*., 2017). Lack of access to high-speed internet and poor network coverage made studying online expensive for students. They had options of commuting to campus or an internet cafés to connect with the internet, or to install Wi-Fi at home, which most could not afford. This showed that spatial factors affected students' socio-economic wellbeing and their success in studying in distanced education.

The effects of spatial aspects on the lives of the students were amplified by the fact that these students come from low-income households. Figure 4.3.6 shows that the majority of students in this study came from households that earned less than R10 000

a month. They were therefore unable to buy the data they needed, even where internet coverage was available. Although all students who participated in the study had the devices they needed to participate in online classes, these were of little help in the absence of data. The university provided some data but the amount was clearly insufficient to keep students connected.

#### **4.7 Conclusion**

The results have been presented in line with the objectives of the study. The study focused on the effects of students' and staff's displacement from place-bound education during the pandemic and the various adjustments required of them with the new blended learning approach implemented by the HBU under investigation. Both quantitative and qualitative data have been presented and discussed, providing a comprehensive picture of the effects of spatial and socio-economic factors on students and lecturers at the selected HBU. The qualitative aspects of the study provided depth and nuance to the quantitative findings, enhanced by the narrow focus on a single case study. Non-probability sampling ensured that respondents in the study were sufficiently well informed to add depth to the study. Data was analysed using thematic analysis by ATLAS.ti and the SPSS software package.

Being removed from place meant that students at this study's HBU could not access the campus-based facilities they relied on for educational engagement. The literature supports the finding that the abrupt switch to distanced education disadvantaged rural learners who lack the internet coverage and data, and frequently lack electricity supply as well, which are essential for them to successfully study online (Mutongoza, 2021). The literature notes that in rural areas, the quality of teaching and learning is weakened by the government's low investment in ICT infrastructure, which is far lower than in urban areas, thus creating a digital divide (Cristobal-Fransi *et al.*, 2020; Hendrics & Mutongoza, 2023; Gunter *et al.*, 2020). The poor quality of internet infrastructure in rural and many semi-urban areas is a factor that must be considered when HBUs roll out distanced education or any type of remote education because the location from which the individual student accesses online classes and or course materials has a bearing on their lived experiences, perceptions and preferences in their studies (Anderson & Dron, 2012; Gunter *et al.*, 2020). The chapter has also shown how the

institution's status as an HBU, with a low socio-economic standing, hindered students' abilities to study remotely. Therefore, students at such institutions fare better in their educational endeavours when they have access to essential campus-based resources. For these students, online learning based entirely in from home is not feasible.

The experiences of academics and students in this study show that the implementation of distance education in resource-constrained settings undermines the main goal of distance education, which is to increase accessibility to education regardless of geographic location (Gunter *et al.*, 2020; Jandric & Hayes, 2019). It is clear that socio-economic factors and the inability to assemble the socio-material resources they need, such as reliable internet, laptops and backup generators to use during load shedding, makes students in rural settings unable to study well online. Thus, geographic location is a limiting factor for educational access, even with online models. For HBU students, the socio-material assemblage possible to them and their low socio-economic status determine which approach education – whether in-person or online – will work best.

The study has shown that HBU students are highly dependent on campus facilities and that being removed from place negatively affects their studies in ways that do not apply to better-resourced students in urban settings. The second part of this chapter showed that the removal from place- and space-bound teaching also negatively affected lecturers, who were equally affected by poor digital infrastructure. Not only were they unable to reach students, but students were unable to engage in classes or submit work on time, which indirectly loaded the lecturers with extra work, since they had to reset tests and assignments. The third part of the chapter discussed the various adaptation strategies devised by the HBU academics during and after the COVID-19 pandemic. This highlighted that HBU staff may have to work harder than their HWI staff members in order to archive their work out-put goals in distanced education settings. This further underscoring how the digital divide affects academic staff.

Overall, the chapter has shown how spatial and socio-economic backgrounds shaped the perceptions and experiences of HBU staff and students during and post-COVID-19. The results show that most HBU students come from low-income rural households, a context that strongly influences their experiences of online learning. Both students and staff preferred on-campus face-to-face teaching to online teaching, as limited or

unaffordable resources such as data and Wi-Fi prevented them from engaging fully in online classes and submitting work on time.

The following chapter concludes the research, summarising the key findings and presenting the implications and recommendations.

## CHAPTER 5: CONCLUSION

### 5.1 Introduction

This chapter provides an overview of the study, drawing conclusions and proposing recommendations based on the findings.

HBU were established to serve the educational needs of the ethnic groups previously disadvantaged during the apartheid era (Mngomezulu & Ndlovu, 2013). These universities and colleges were and remain underserved (Ilora, 2006; Mdiya, 2020). With the outbreak of COVID-19 in 2020 and the resulting lockdowns, residential tertiary institutions had to pivot abruptly from traditional face-to-face classes to online classes (Cranfield *et al.*, 2021). The suddenness of the switch created the impression of students and staff being ‘forced’ into distance education. Students had registered as residential students yet the pandemic’s lockdowns propelled them into distance education, creating a situation that felt more like ‘distanced’ education, as this study has noted. The research adopted the terminology of ‘distanced’ education to allude to the experience as well as the reality – students felt distanced by online learning.

The implications of distanced education for HEIs, particularly HBUs, are that staff and students were temporarily displaced from place and separated in space during the pandemic, before subsequently adjusting to the resumption of traditional face-to-face classes or blended teaching and learning post-pandemic. This removal from place meant that HBU students and academic staff were unable to access campus-based facilities for which they had effectively signed up when registering at a residential university. This had a domino effect, affecting academic staff and students’ perceptions and preferences regarding their educational experiences in distanced education.

The study has also highlighted the adaptation strategies devised by the academics at this HBU in the Eastern Cape, South Africa, both as a contingency measure during the pandemic and as practices implemented post-pandemic, to maximise online teaching success.

To address these aspects, the study’s conceptual framework was informed by three key concepts: distance education, place/space theory and socio-material assemblage

theory. The findings indicate that the shift to distanced education left higher education insufficiently prepared to sustain online teaching and learning, largely because of financial, technological and structural constraints (Katleyana & Mirizon, 2023).

## **5.2 Perceptions and Experiences of Distanced Education in the Context of HBU Students**

The results of this study indicated that the socio-demographic data of students is very influential in shaping experiences and perceptions of students on distanced education. The study revealed that most students in this HBU are Black, and literature has mentioned that due to the technical factors that stem from the colonial past, Black students have been excluded in online learning (Hlatshwayo, 2020). The results of this study, particularly the socio-demographic factors reveal similar sentiments, that the effects of the colonial and pre-democratic past has led to HBU students suffering from unequal access to ICT resources and infrastructure that enable them educational success in distanced education. The unequal access that led to a digital divide amongst students of rural vs urban backgrounds.

The fact that most students in this study lived far from campus (>20 km away) further exacerbated the digital divide, as limited access to ICT resources at home forced them to commute long distances to use campus facilities, even when the institution returned to face-to-face and blended classes. This imposed additional financial burdens on students who were already economically constrained (Aruleba & Jere, 2022; Gunter, 2025). The results revealed that the majority of students came from low-income households with monthly incomes of less than R10 000 (Figure 4.3.6). While low household incomes are typical in many Eastern Cape communities (Mushunje & Olawuyi, 2023), the shift to remote learning highlighted the extent to which removal from campus exacerbated existing challenges. These findings align with literature showing that students from low-income households often face financial barriers to accessing digital resources such as Wi-Fi, data, or appropriate devices (Hlatshwayo, 2022; Mdiya, 2020; Aruleba & Jere, 2022). This highlighted the crucial role played by spatial and socio-economic factors in excluding many HBU students from accessing education when they were distanced from campus.

As has been established, South Africa has one of the largest digital divides globally (Czerniewicz *et al.*, 2020). The study found that the divide was particularly pronounced in the HBU under investigation. The findings emphasise that while the socio-demographic challenges themselves are not new, the COVID-19 pandemic exposed the magnitude of the implications of being removed from place. HBU students' dependence on campus facilities for successful learning was evident, indicating that distanced education is largely ineffective for this group. Consequently, HBU students are not only likely to prefer but also require campus-based learning to achieve educational goals.

Participants' socio-demographic profiles suggest that students in this case study form a vulnerable group in distanced education, primarily because of the digital divide that disproportionately disadvantages them. These results highlight the role of place and the influence of socio-material assemblages in shaping educational experiences. However, some socio-demographic factors, such as age, lack evidence-based literature demonstrating their effect on distanced education.

Students' perceptions and experiences of distanced education were also shaped by variables that enabled or constrained their learning in this context. These factors include the availability of study space, prior experience of online learning pre-COVID-19, frequency of online learning, post COVID-19 learning experience, internet availability and reliability, electricity access and stability, the influence of load shedding, the quality of student–lecturer interactions, social media use and students' performance in online vs in-person classes. These factors highlight the digital divide that renders students at this HBU vulnerable in distanced education. At the same time, they underscore the importance of place in learning and reinforce the conceptual framework, which posits that place and socio-material assemblages interact to shape educational experience in distance learning. In particular, factors such as study space, the quality of the internet connection and load-shedding illustrate how students' spatial and socio-economic situations affect their engagement and performance in online learning environments.

Students highlighted several factors that limited their access to distanced education. For instance, poor internet connectivity affected their communication and interaction with lecturers, with students preferring official platforms to communicate with lecturers

rather than social media such as WhatsApp. This is despite suggestions in the literature that social media platforms use lower bandwidth, which makes them ideal for use in low-internet areas such as Alice and surrounding villages (Bozkurt, 2023; Clare Madge *et al.*, 2019; Mphuthi, Ngoveni & Mphahlele, 2025). Students reported that they preferred Blackboard, because it was perceived as more professional and appropriate for study purposes than social media, which led to distractions and loss of focus (Azizur Rahman *et al.*, 2020; Van den Berg & Mudau, 2022).

This study also found that most of the variables that enabled distance education negatively affected students' mental health, causing a sense of isolation and a drop in motivation. Rather than increasing access, distanced education often restricted it, as students were removed from campus-based facilities and support systems on which they relied for both academic and psychosocial support (Hehir *et al.*, 2022; Calbi *et al.*, 2021; Poppe *et al.*, 2022).

Based on these experiences, the majority of students expressed a clear preference for face-to-face learning and an aversion to online learning. While distanced education was intended to provide marginalised students with greater access to education, especially in times of crisis such as the COVID-19, distanced education is less than ideal for HBU students owing to their geographic, spatial and socio-economic contexts. This finding aligns with previous research, which indicates that online learning is not universally accessible but depends on the resources and environments available to students at their homes (Gunter, 2025; Fenwick & Edwards, 2019).

### **5.3 Perceptions and Implications of Distanced Education in the Context of HBU Staff**

The socio-demographic profiles of academic staff at the selected HBU also highlighted aspects of the digital divide, particularly in relation to staff's home locations, which were mostly rural. Like students, staff were disproportionately disadvantaged by poor access to ICT infrastructure in these locations. Unlike students, however, age emerged as a significant factor for academic staff in distanced education. The results reveal that the majority of academic staff at this institution were relatively young, which the literature links to technical fluency and higher competence with ICT tools, including use of social media and live teaching platforms (Choudhary, 2025; Samifanni &

Gumanit, 2021). For this reason, therefore, academic staff should have been well equipped to adapt to the new educational system.

However, the academic staff's perceptions of distance education indicated predominantly negative experiences. Themes that emerged highlighted challenges in working remotely, such as the unavailability of suitable workspaces at home. Staff also highlighted factors like poor attendance and interaction on the part of students, which reflected in their poor performance. Academics felt that their own online skills were mostly poor, reflecting findings in the literature that academic staff require a great deal of training and support when switching from face-to-face to distanced education (Khoza & Biyela, 2019; Simamora *et al.*, 2020; Skliarova *et al.*, 2022).

The results of this study further indicated that academic staff found being removed from campus into distanced education created more work for them. This was caused largely by the need to constantly reset tests and shift assignment deadlines because students were missing tests and deadlines for various technical reasons. Also, presenting content digitally required extra work to maintain the same work output that they had previously maintained pre-COVID pandemic. This finding concurs with findings in the literature that online education adds more work to academics because they have to digitise their content and sometimes change their teaching methods and content to suit the new environment (Willet & He, 2023; Mosleh *et al.*, 2022). The literature further shows that the shift to distanced education did not consider the additional time required to develop online material, which led to lecturers being overwhelmed with work (Simamora *et al.*, 2020; Al Gamdi & Samrji, 2016; Bozkurt *et al.*, 2020). This is one of the reasons that academics tended to prefer conventional face-to-face classes to online teaching in this study.

Although academics preferred face to face to online teaching and learning, while mandated by the COVID-19 pandemic restrictions into distanced education and post pandemic blended instruction, they devised ways of adapting to distanced education. The findings of this study indicated that academics implemented interactive learning strategies such as short tasks, spot tests or using discussions to encourage student interaction during online classes. However, most academics indicated dissatisfaction to such methods because students faced technical challenges such as poor internet connections, lack of sufficient data or lack of appropriate devices to attend online

classes synchronously and that hindered them to actively participate. To overcome lack of engagement due to technical challenges, academics stated that they used support systems such as tutors or in some cases used platforms such as YouTube videos to help students who missed synchronous classes to grasp concepts. YouTube was also used by STEM academics to help students see how practicals are carried out in real-life since they could not access campus to carry out experiments. However, academics indicated that these measures were not fruitful as students sometimes used technical challenges as an excuse to avoid participation.

Students' performance was another effect of the changes that accompanied the shift to distanced education. The majority of staff in this case study indicated a drop in the quality of work submitted by students, noting that where apparent improvements were noticed, these were almost certainly the result of violations of academic integrity. This is not a new finding – past research has shown that successful online education requires training of staff and the technological tools to prevent academic dishonesty (Verhoef & Coaster, 2021; Maravanyika, 2022). The abruptness of the shift to distanced education meant that this institution was unable to prepare for the implications, such as monitoring students as they wrote tests. As noted in the study, HBUs are underfunded and the technologies needed to maintain academic integrity are quite costly. The pandemic therefore exposed how under-prepared and ill-equipped this HBU was. The same is likely to be true of other HBUs. In effect, HBUs suffer a double burden when unfortunate situations like the COVID-19 pandemic occur, because they are already dealing with a number of technical challenges. The switch to online learning and the attempt to blend online with face-to-face teaching is far more difficult for HBUs to manage successfully than for HWIs. This is one of the aspects of the digital divide between HBUs and HWIs, which is especially felt in times of crisis.

Ultimately, the findings of this research revealed no fundamentally new challenges in relation to academic staff and students' experiences in distanced education. Most of the technical and non-technical challenges identified were pre-existing conditions. However, these challenges had been largely obscured by the strong reliance of staff and students on on-campus facilities, as teaching and learning were seldom conducted remotely prior to the pandemic. Hence, abruptly removing academic staff

and students exposed this HBUs' unpreparedness to venture into any form of remote or distance education.

#### **5.4 Adaptation Strategies Devised by Academics**

The major challenge academics faced was severe lack of student participation and engagement which disrupted the learning processes. The themes that emerged to overcome or adapt to this challenge focused on improving communication, building teamwork, and maintaining productive remote learning environments. Academics also used discussions to foster a sense of connection despite physical distance. Another major challenge academics faced was lack of engagement due to connectivity barrier: where poor home internet coverage prevented rural students from attending synchronous online classes. Academics shifted to platforms like WhatsApp that tend to require lower bandwidth and STEM academics indicated that they used other social media platforms like Youtube which simulated the practicals that they were not able to carry out in person due to lockdowns. However, using social media was unlikely to be a satisfactory method of encouraging engagement, especially since, as noted by both students and staff, social media was rarely used to carry out teaching and learning activities in this case study.

As a result of these challenges, the majority of academics preferred face-to-face instruction over online methods, with some advocating for a blended approach. The face to face preference was largely driven by significant remote learning challenges, including poor student internet access, high rates of academic dishonesty, and low engagement.

#### **5.5 The Role of Varying Spatial and Socio-Economic Backgrounds on the Perceptions and Experiences of Students and Academics During and Post-COVID-19**

The shift to distance education profoundly highlighted the deep-seated inequalities between rural and urban students in online learning, demonstrating that physical location and socio-material realities determine academic success. For Historically Black University (HBU) students residing in rural South Africa, online learning did not democratise education; instead, it introduced severe infrastructural barriers. The lack of high-speed internet infrastructure and poor network coverage directly affected

students' academic performance, causing missed lectures, late assignment submissions, and poor communication with their lecturers. Furthermore, HBU students' failure to access campus and its facilities forced students to experience financial and temporal costs—either by commuting to expensive internet cafés or struggling to study within distraction-prone households, with no designated spaces to study.

Most importantly, these spatial limitations were exacerbated by domestic and economic challenges faced by HBU students. Rural students faced lesser study time due to familial responsibilities, such as farming and caretaking, placing them at a distinct disadvantage compared to their urban counterparts. This vulnerability was further exacerbated by poverty, as the study showed that the vast majority of households survived on less than R10 000 a month. Consequently, even when physical network coverage was available, data remained entirely unaffordable. Although students possessed physical resources, like laptops, required for online learning, these devices were not of much use without adequate connectivity, proving that the university's data provisions fell short of what was needed to bridge the socio-economic gap between rural and urban students. Ultimately, this research highlights that for HBU students, shift to online education cannot succeed without addressing systemic infrastructure deficits and socio-economic poverty. Therefore, HBU students need campus facilities for educational success, because online learning models disadvantage underprivileged rural students.

## **5.6 Recommendations**

The following recommendations, if implemented, could contribute to the more effective delivery of distance education and improved educational experiences for both academics and students at the selected HBU.

- Robust and intentional investment in ICT infrastructure by relevant government authorities, particularly in rural and underserved areas. This would help to ensure reliable and affordable internet access for staff and students studying and working at home (Coker & Mercieca, 2023)

- In cases of unexpected shifts to distanced education, such as during the COVID-19 pandemic, additional support should be provided to HBU staff and students to ensure equitable access to education relative to their counterparts at HWIs (Mtsweni, 2022; Mateko, Dowelani & Sinamano, 2023).
- The authorities should consider implementing more training and support for adaptation strategies to help upgrade the knowledge and skills of academic staff, even in blended teaching. Although blended education was implemented to reap the benefits of both face-to-face and online learning, however, if it is not properly supported, academic staff are likely to face the same frustrations that hampered them when teaching was done exclusively online.

### **5.7 Limitations and Suggestions for Future Research**

This study was limited in scope and data in several respects. First, the investigation focused on a single institution and the participant sample was relatively small. Although qualitative research does not prioritise the size of the sample, the research could have been richer had it included one or two other HBUs in the investigation. This might have enabled conclusions that could be applied more broadly. As it stands, the findings may be specific to this particular institution owing to its contextual and institutional factors.

Future research could delve more deeply into the long-term impacts of shifting from face-to-face to distanced (online) education or blended education in HBUs. Graduation rates, for instance, could be affected by the switch. Studies could examine the effects of using blended models of education for HBUs, since this institution, among many others, is now using a blended approach. It would be interesting to compare the graduation rates (and the marks attained) associated with face-to-face learning, exclusively, with those associated with three or four years of blended learning.

### **5.8 Conclusion**

The first objective sought to explore the perceptions and experiences of HBU students of the removal of place- and space-bound learning activities through distanced education during the COVID-19 pandemic, and the influence of post-pandemic educational approaches (the resumption of traditional and/or adoption of blended

approaches. This research addressed this objective by revealing that the HBU students' socio-demographic backgrounds highlighted the spatio- and socio-economic factors that influenced the students' perceptions and experiences in distanced education. Moreover, students' experiences exposed the extent to which the digital divide and other pre-existing technical challenges affected HBU students when a crisis (COVID-19) forced them into distanced education and revealed their reliance on campus-based facilities. As a result, students' experiences in distanced education influenced their post pandemic educational approaches, where students preferred face to face classes over online or blended approaches.

The second objective sought to explore the perceptions and experiences of academic staff of an HBU of the removal of place- and space-bound teaching and other work activities during the COVID-19 pandemic, and the influence of post-pandemic educational approaches. This research addressed this objective by revealing that similar to students, being removed from campus highlighted aspects of the digital divide and their reliance on on-campus facilities, particularly based on the socio-demographic profiles of academic staff. Academics' experiences on being removed from place- and space-bound activities were thus predominantly negative. Factors like unavailability of suitable workspaces at home, poor attendance or interaction on the part of students, online teaching creating more work for them and poor online skills on their part led to the negative experiences that hindered their work-output successes. This study revealed that it is for these reasons that academics tended to prefer conventional face-to-face classes to online or blended teaching in this study.

The third objective sought to assess the adaptation strategies devised by academics of the selected HBU, both as a contingency during the COVID-19 pandemic and as measures implemented post-pandemic, to maximise or facilitate teaching success. The findings of this study indicated that academics employed interactive learning where they used discussion and awarded marks for it or giving students short tasks in class. This was used strategy to encourage students' participation because the study noted that academics revealed that there was poor participation and engagement from students in online classes. However academics indicated that these measures were not effective since students in some cases used technical challenges as an excuse not to participate. Academics also used support systems such as using tutors or using

online resources such as YouTube, particularly STEM academics who wanted to show students how practicals are done since they could not be in campus to carry out experiments. Other academics added that they had to set retests and set more assignments to cater for students who fail to write tests or submit on time due to technical challenges. Ultimately these findings revealed distanced education created more work for academic staff and that led to them failing to reach their work output goals.

The forth objective sought to assess the role of varying spatial and socio-economic backgrounds on the perceptions and experiences of students and academics during and post-COVID-19, in the context of their position at an HBU. This objective revealed that spatially, geographic location affected staff and students' experiences. Most students were from rural areas and rural areas by nature were disadvantaged in technology and infrastructure. Academic staff alike indicated a lack of access to high-speed internet owing to inadequate internet infrastructure in their semi-urban homes. To add on, academic staff's urban homes had limited space to allow them to work from home without disruptions. Similarly, for students, although rural households are expansive in their overall layout, the living area may be small, thus students failed to get dedicated study space without disruptions. Furthermore, HBU students' homes being rural meant that students were affected by distractions than in comparable homes in urban areas because of added agricultural and household responsibilities that characterise rural households. This highlighted the significance of place and the role of socio-material assemblages in distanced education.

Socio-economically, distanced education is expensive for rural students because they are from low-income households. This study revealed that students had to commute either to campus or internet cafés to access the internet because they had no internet connection at home. Furthermore, the study revealed that HBU students were unable to buy the data they needed, even where internet coverage was available. This study highlighted that students from low-income households are vulnerable in distanced education settings in that although all students who participated in this study had the devices they needed to participate in online classes, these were of little help in the absence of data. Academic staff also revealed that they had to incur costs in buying additional data to supplement the one provided by the university as it was not enough.

This ultimately underscored the significance of place for HBU staff and students particularly due to their spatial and socio-economic backgrounds, which highlighted their reliance on campus facilities for educational success.

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## **APPENDICES**

### **APPENDIX A**

#### **Students` questionnaire**

**Master's questionnaire – The experiences of staff and students in terms of space, place and distance education at the University of Fort Hare**

**Department of Geography**

**College of Agriculture and Environmental Sciences**

**University of South Africa**



You are invited to participate in a questionnaire for a Master's study that anticipates to gain information which will help to understand the experiences of online teaching and learning and the knock-on effects of returning to face to face classes post the Covid-19 pandemic from the voices of staff and students from a previously disadvantaged University. As a University of Fort Hare student, you are eligible to participate. You are, however, under no obligation to complete the questionnaire and you can withdraw from the study prior to submitting the questionnaire. The questionnaire is developed to be anonymous, meaning that we will have no way of connecting the information that you provide to you personally. Consequently, by completing this questionnaire you are consenting to participate in the research.

The primary researcher is Novuyo Gumpo. You can contact the researcher during office hours at 68669372@mylife.unisa.ac.za or Vuyogumpo1@gmail.com.

Please have a look at the document that shares more information about this research (a hard copy will be shared with you). Thank you.

## Questionnaire for STUDENTS

\*Indicates required question

**Do you consent to participate in this research?\***

☐ Yes, I consent

☐ No, I do not consent

### SECTION A: GENERAL/BACKGROUND QUESTIONS

1. Age (Years)

|       |       |       |       |       |          |
|-------|-------|-------|-------|-------|----------|
| 18-25 | 25-30 | 30-35 | 35-40 | 40-50 | Above 50 |
|-------|-------|-------|-------|-------|----------|

2. Gender

|      |        |       |                   |
|------|--------|-------|-------------------|
| Male | Female | Other | Prefer not to say |
|------|--------|-------|-------------------|

3. Ethnicity

|       |       |          |        |       |
|-------|-------|----------|--------|-------|
| Black | White | Coloured | Indian | Other |
|-------|-------|----------|--------|-------|

4. Faculty

|                         |                     |
|-------------------------|---------------------|
| Science and Agriculture | Commerce/Humanities |
|-------------------------|---------------------|

5. How would you classify your home location?

|       |            |       |
|-------|------------|-------|
| Urban | Semi-urban | Rural |
|-------|------------|-------|

6. How far is your home from campus?

|             |        |         |         |                |
|-------------|--------|---------|---------|----------------|
| 5km or less | 5-10km | 10-15km | 15-20km | More than 20km |
|-------------|--------|---------|---------|----------------|

7. What is your average monthly household income (R)?

|              |               |               |               |               |                 |
|--------------|---------------|---------------|---------------|---------------|-----------------|
| Below 10 000 | 10 000-20 000 | 20 000-30 000 | 30 000-40 000 | 40 000-50 000 | Above<br>50 000 |
|--------------|---------------|---------------|---------------|---------------|-----------------|

8. What year of your studies are you currently completing?

|  |
|--|
|  |
|--|

## SECTION B: EXPERIENCES OF LEARNING

9. Do you have space to study at home without any disturbance?

|                   |          |         |       |                |
|-------------------|----------|---------|-------|----------------|
| Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|-------------------|----------|---------|-------|----------------|

10. Have you had any prior experience with studying from a distance before the Covid-19 pandemic?

|       |        |           |       |        |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

11. How often do you study from home since the institution returned to face to face lectures (post-Covid-19 restrictions)?

|       |        |           |       |        |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|



18. If you do not have electricity, how does that affect your learning from home?

|  |
|--|
|  |
|--|

19. Do you experience load shedding at home during the time you are studying from home?

|       |        |           |       |        |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

20. How does load shedding affect your online learning experience?

|  |
|--|
|  |
|--|

21. Do you have any device (s) that you are able to use to study online? If so, what kind of device is it (laptop, tablet or phone)?

|  |
|--|
|  |
|--|

22. How would you rate your interaction with your lecturers when you are studying remotely or online?

|           |      |          |      |           |
|-----------|------|----------|------|-----------|
| Very poor | Poor | Moderate | Good | Very good |
|-----------|------|----------|------|-----------|

23. Do you ever use social media (WhatsApp, Facebook, Twitter (X) etc.) to interact with your lecturers when studying remotely or online?

|       |        |           |       |        |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

24. Which method do you prefer using to communicate with your lecturers - social media or the official university platforms such as emails, blackboard etc.?

|                       |                                        |
|-----------------------|----------------------------------------|
| I prefer social media | I prefer official university platforms |
|-----------------------|----------------------------------------|

25. Please elaborate why you prefer the platform you chose in question 23?

|                                          |
|------------------------------------------|
| <br><br><br><br><br><br><br><br><br><br> |
|------------------------------------------|

26. Do you find interacting with your fellow students easier or harder when you are studying from home vs in person? Please elaborate why.

|                                          |
|------------------------------------------|
| <br><br><br><br><br><br><br><br><br><br> |
|------------------------------------------|

27. What difference can you notice that learning from home vs face to face make?

|                                          |
|------------------------------------------|
| <br><br><br><br><br><br><br><br><br><br> |
|------------------------------------------|

28. How would you rate your online learning skills when it comes to accessing and navigating online classes (for example submitting assignments, attending virtual classes, practical's and writing online tests)?

|           |      |          |      |           |
|-----------|------|----------|------|-----------|
| Very poor | Poor | Moderate | Good | Very good |
|-----------|------|----------|------|-----------|

29. How do your learning skills affect your learning experience online?

30. Do you feel online learning affects/changes your learning in a positive or negative way? What measures have you taken to counter the changes?

31. How does the physical distance away from the university affect your experience in learning (again in reference to submitting assignments, attending virtual classes, practicals and writing online tests)?

32. Do you think you performed better or worse in terms of online learning as opposed to face-to-face learning such as in-person classes (from 2020 to date)?

|                      |                       |                         |                   |                  |
|----------------------|-----------------------|-------------------------|-------------------|------------------|
| Greatly deteriorated | Slightly deteriorated | There was no difference | Slightly improved | Greatly improved |
|----------------------|-----------------------|-------------------------|-------------------|------------------|

33. Which mode of tertiary education (online vs face to face) do you prefer and why?

\*Would you be interested in participating in an interview on this or a similar study in the future? If you do, kindly leave your email address below.

END

THANK YOU FOR YOUR PARTICIPATION

## **APPENDIX B**

### **Staff's questionnaire**

**Master's questionnaire – The experiences of staff and students in terms of space, place and distance education at the University of Fort Hare**

**Department of Geography**

**College of Agriculture and Environmental Sciences**

**University of South Africa**



You are invited to participate in a questionnaire for a Master's study that anticipates to gain information which will help to understand the experiences of online teaching and learning and the knock-on effects of returning to face to face classes post the Covid-19 pandemic from the voices of staff and students from a previously disadvantaged University. As a University of Fort Hare staff member, you are eligible to participate. You are, however, under no obligation to complete the questionnaire and you can withdraw from the study prior to submitting the questionnaire. The questionnaire is developed to be anonymous, meaning that we will have no way of connecting the information that you provide to you personally. Consequently, by completing this questionnaire you are consenting to participate in the research.

The primary researcher is Novuyo Gumpo. Please have a look at the document that shares more information about this research (a hard copy will be shared with you). Thank you.

## Questionnaire for STAFF

\*Indicates required question

**Do you consent to participate in this research?\***

☒ Yes, I consent

☐ No, I do not consent

### SECTION A: GENERAL/BACKGROUND QUESTIONS

1. Age (Years)

|       |       |       |       |       |          |
|-------|-------|-------|-------|-------|----------|
| 18-25 | 25-30 | 30-35 | 35-40 | 40-50 | Above 50 |
|-------|-------|-------|-------|-------|----------|

2. Gender

|      |        |       |                   |
|------|--------|-------|-------------------|
| Male | Female | Other | Prefer not to say |
|------|--------|-------|-------------------|

3. Ethnicity

|       |       |          |        |       |
|-------|-------|----------|--------|-------|
| Black | White | Coloured | Indian | Other |
|-------|-------|----------|--------|-------|

4. Faculty

|                         |                     |
|-------------------------|---------------------|
| Science and Agriculture | Commerce/Humanities |
|-------------------------|---------------------|

5. What is your occupation?

|  |
|--|
|  |
|--|

6. What is your average monthly household income (R)?

|              |               |               |               |               |                 |
|--------------|---------------|---------------|---------------|---------------|-----------------|
| Below 10 000 | 10 000-20 000 | 20 000-30 000 | 30 000-40 000 | 40 000-50 000 | Above<br>50 000 |
|--------------|---------------|---------------|---------------|---------------|-----------------|

7. How would you classify your home location (where you teach from online?)

|       |            |       |
|-------|------------|-------|
| Urban | Semi-urban | Rural |
|-------|------------|-------|

8. How far is your home from campus?

|             |        |          |         |                   |
|-------------|--------|----------|---------|-------------------|
| 5km or less | 5-10km | 10-15 km | 15-20km | More than<br>20km |
|-------------|--------|----------|---------|-------------------|

#### **SECTION B: EXPERIENCES OF TEACHING**

9. Have you had any prior experience with teaching from a distance before the Covid-19 pandemic?

|       |        |           |       |        |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

10. Post Covid-19 restrictions, do you still teach or do other work-related activities (remotely) online from home after the institution returned to face to face classes?

|       |        |           |       |        |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

11. If you do still do work remotely (online) - what kind of work-related activities do you do?

|          |          |       |             |       |
|----------|----------|-------|-------------|-------|
| Meetings | Lectures | Tests | Assignments | Other |
|----------|----------|-------|-------------|-------|

12. Do you have space at home to teach without any disturbance?

|                   |          |         |       |                |
|-------------------|----------|---------|-------|----------------|
| Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|-------------------|----------|---------|-------|----------------|

13. If you do not have space to work from home, what measures did/do you take to avoid disturbances?

|  |
|--|
|  |
|--|

14. Do you have internet connection in your home?

|     |    |
|-----|----|
| Yes | No |
|-----|----|

15. How do you fund the source of connectivity such as data/WI-FI?

|  |
|--|
|  |
|--|

16. How reliable or stable is your internet connection at home?

|           |      |          |      |           |
|-----------|------|----------|------|-----------|
| Very poor | Poor | Moderate | Good | Very good |
|-----------|------|----------|------|-----------|

17. If you answered poor or very poor in question 15, what alternative strategies do you use to teach/conduct other work-related activities when away from the campus?

|  |
|--|
|  |
|--|

18. Do you have electricity in your home?

|     |    |
|-----|----|
| Yes | No |
|-----|----|

19. How reliable or stable is your electricity network at home?

|           |      |          |      |           |
|-----------|------|----------|------|-----------|
| Very poor | Poor | Moderate | Good | Very good |
|-----------|------|----------|------|-----------|

20. If you do not, how did/does that affect your working from home?

|  |
|--|
|  |
|--|

21. Do you have any device (s) that you are able to use to teach or work online? If so, what kind of device is it (laptop, tablet or phone)?

|  |
|--|
|  |
|--|

22. How would you rate your interaction with your students online?

|           |      |          |      |           |
|-----------|------|----------|------|-----------|
| Very poor | Poor | Moderate | Good | Very good |
|-----------|------|----------|------|-----------|

23. Do your students ever use social media to communicate with you?

|       |        |           |       |        |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

24. Between social media (WhatsApp, Facebook, Twitter (X) etc.) and the official university platforms, which method do you receive the most communication from your students from?

|                       |                                        |
|-----------------------|----------------------------------------|
| I prefer social media | I prefer official university platforms |
|-----------------------|----------------------------------------|

25. What are the differences that you notice between teaching online vs face to face?

|  |
|--|
|  |
|--|

26. How would you rate your online teaching skills when it comes to accessing and navigating online classes (for example setting tests/assignments, marking, conducting virtual classes, and practicals)

|           |      |          |      |           |
|-----------|------|----------|------|-----------|
| Very poor | Poor | Moderate | Good | Very good |
|-----------|------|----------|------|-----------|

27. If you answered poor or very poor in question 25, what measures do you take to overcome any lack in skills?

|  |
|--|
|  |
|--|

28. How do you feel online teaching changes/affects your teaching in any way?

|  |
|--|
|  |
|--|

29. How did/do you keep students engaged (answering questions/discussions) in a virtual class?

30. How does the physical distance away from the university affect your experience in teaching (again in reference to setting assignments, conducting virtual classes, practicals and setting online tests?)

31. Any strategies you have used /still use to overcome the potential challenges caused by physical distance between you and the university when working from home? (In reference to question 21-23).

32. Do you think your students have performed better or worse in online learning as opposed to in-person classes (from 2020 to date)?

|                      |                       |                         |                   |                  |
|----------------------|-----------------------|-------------------------|-------------------|------------------|
| Greatly deteriorated | Slightly deteriorated | There was no difference | Slightly improved | Greatly improved |
|----------------------|-----------------------|-------------------------|-------------------|------------------|

33. Please elaborate the answer in question 30?

34. Which mode of tertiary education (online vs face to face) do you prefer and why?

\*Would you be interested in participating in an interview on this or a similar study in the future? If you do, kindly leave your email address below.

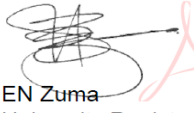
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END

THANK YOU FOR YOUR PARTICIPATION

## APPENDIX C

### Gate keepers' permission letter from the case study institution

|                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>University of Fort Hare<br/>Together in Excellence</p>                                                                                                                                                                                                                                                    | <p>University of Fort Hare<br/><b>OFFICE OF UNIVERSITY REGISTRAR</b></p> | <p><b>Alice (Main) Campus:</b> Private Bag X1314, King William's Town Road, Alice, 5700, RSA<br/>Tel: +27 (0) 40 602 2501 • Fax: +27 (0) 40 602 2577 • Email: akaturura@ufh.ac.za / registrar@ufh.ac.za<br/><b>East London Campus:</b> Private Bag X9083, 50 Church Street, East London, 5201, RSA</p> |
| <p>23<sup>rd</sup> May 2024</p>                                                                                                                                                                                                                                                                                                                                                                |                                                                          |                                                                                                                                                                                                                                                                                                        |
| <p><b>Researcher:</b> Ms Novuyo Gumpo - <a href="mailto:68669372@mylife.unisa.ac.za">68669372@mylife.unisa.ac.za</a><br/><b>Supervisor:</b> Professor Ashley Gunter <a href="mailto:gunteaw@unisa.ac.za">gunteaw@unisa.ac.za</a><br/><b>Co-Supervisor:</b> Mrs Leani van Vuuren <a href="mailto:dvriel@unisa.ac.za">dvriel@unisa.ac.za</a></p>                                                 |                                                                          |                                                                                                                                                                                                                                                                                                        |
| <p><b>RE: Permission to Conduct Research at the University of Fort Hare.</b></p>                                                                                                                                                                                                                                                                                                               |                                                                          |                                                                                                                                                                                                                                                                                                        |
| <p>We have reviewed your request for permission to conduct research at the University of Fort Hare for an MSc research project in Department of Geography at Unisa under the title, <b>Exploring Space, Place and Distance Education through the Experiences of Staff post the Covid-19 Pandemic at the University of Fort Hare: A Case Study of a Previously Disadvantaged University</b></p> |                                                                          |                                                                                                                                                                                                                                                                                                        |
| <p>This letter serves to notify you that permission is hereby granted for you to carry out the research and to utilise the data for this project as laid out in</p>                                                                                                                                                                                                                            |                                                                          |                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"><li>- your request for this gatekeeper's permission</li><li>- your research proposal,</li><li>- the questionnaire that you submitted, and</li><li>- in accordance with the stipulations under which ethical clearance for the study was issued by the College of Agriculture and Environmental Sciences Health REC at Unisa.</li></ul>                       |                                                                          |                                                                                                                                                                                                                                                                                                        |
| <p>Kindly be advised that beyond issuing this permission letter the Office of the Registrar is regrettably not able to assist with identification of and contacting participants, distributing and/or collecting questionnaires or any other related activities in the research process.</p>                                                                                                   |                                                                          |                                                                                                                                                                                                                                                                                                        |
| <p>You may contact, the identified persons and/or offices directly.</p>                                                                                                                                                                                                                                                                                                                        |                                                                          |                                                                                                                                                                                                                                                                                                        |
| <p>Yours Sincerely</p>                                                                                                                                                                                                                                                                                                                                                                         |                                                                          |                                                                                                                                                                                                                                                                                                        |
|  <p>EN Zuma<br/>University Registrar</p>                                                                                                                                                                                                                                                                    | <p>2024.05.24<br/>15:16:21 +02'00'<br/>2024.002.20759</p>                |                                                                                                                                                                                                                                                                                                        |
| <p><a href="http://www.ufh.ac.za">www.ufh.ac.za</a>    <a href="https://www.facebook.com/ufh1916">ufh1916</a>    <a href="https://twitter.com/ufh1916">@ufh1916</a>    <a href="https://www.instagram.com/ufh1916">@ufh1916</a></p>                                                                                                                                                            |                                                                          |                                                                                                                                                                                                                                                                                                        |

## APPENDIX D

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div style="display: flex; align-items: center; justify-content: flex-end;"><div style="font-size: 2em; font-weight: bold; margin-right: 10px;">UNISA</div><div style="text-align: right;"><br/>university<br/>of south africa</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                  |
| College of Agriculture and Environmental Sciences_Health REC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                  |
| Date: 04/06/2024<br><br>Dear: Ms Novuyo Gumpo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <div style="border: 1px solid black; padding: 5px;">NHREC Registration # : REC-170616-051<br/>Ref #: 2024/CAES_HREC/2924<br/>Name: Ms Novuyo Gumpo<br/>Student #: 68669372</div> |
| <div style="border: 1px solid black; background-color: #e0f2f1; padding: 10px; margin-top: 10px;"><b>Decision: Ethics Approval from<br/>04/06/2024 to 31/05/2027</b></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                  |
| <hr/> <p><b>Researcher:</b> Ms Novuyo Gumpo<br/>68669372@mylife.unisa.ac.za 0637978114</p> <p><b>Supervisor:</b> Professor Ashley Gunter gunteaw@unisa.ac.za</p> <p><b>Co-Supervisor:</b> Mrs Leani van Vuuren dvriel@unisa.ac.za</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                  |
| <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"><b>Exploring Space, Place and Distance Education through the Experiences of Staff and Students, during and post Covid-19 pandemic at the UFH: A Case Study of a Previously Disadvantaged University</b></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                  |
| <p><b>Qualification:</b> MSc Geography</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                  |
| <p>Thank you for the application for research ethics clearance by the College of Agriculture and Environmental Sciences_Health REC for the above mentioned research study. Ethics approval is granted for three years, <b>subject to submission of yearly progress reports. Failure to submit the progress report will lead to withdrawal of the ethics clearance until the report is submitted.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                  |
| <p><b>Due date for progress report: 31 May 2025</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                  |
| <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"><p>The <b>low risk application</b> was <b>reviewed</b> by College of Agriculture and Environmental Sciences_Health REC on 15 February 2024, and the required clarifications approved on 04 June 2024 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.</p><p>The proposed research may now commence with the provisions that:</p><ol style="list-style-type: none"><li>1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.</li><li>2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the College of Agriculture and Environmental Sciences_Health REC.</li><li>3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.</li><li>4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.</li></ol></div> |                                                                                                                                                                                  |
| Page 1 of 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                  |

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date (31 May 2025). Submission of a completed research ethics progress report will constitute an application for renewal, for Ethics Research Committee approval.

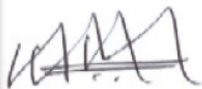
#### **Additional Conditions**

1. Disclosure of data to third parties is prohibited without explicit consent from Unisa.
2. De-identified data must be safely stored on password protected PCs.
3. Care should be taken by the researcher when publishing the results to protect the confidentiality and privacy of the university.
4. Adherence to the National Statement on Ethical Research and Publication practices, principle 7 referring to Social awareness, must be ensured: "Researchers and institutions must be sensitive to the potential impact of their research on society, marginal groups or individuals, and must consider these when weighing the benefits of the research against any harmful effects, with a view to minimising or avoiding the latter where possible." Unisa will not be liable for any failure to comply with this principle.

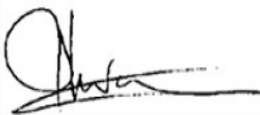
#### **Note**

The reference number 2024/CAES\_HREC/2924 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Kind regards,



Prof MA Antwi  
Chair of College of Agriculture and Environmental Sciences\_Health REC  
E-mail: antwima@unisa.ac.za



Prof M Ntwasa  
Executive Dean / By delegation from the Executive Dean of College of Agriculture and Environmental Sciences\_Health REC  
E-mail: ntwasmm@unisa.ac.za