Cape Peninsula
University of Technology

NEW-AGE TOURISM STUDENTS' LEARNING PREFERENCES AND IMPLICATIONS FOR TOURISM EDUCATION AT UNIVERSITIES OF TECHNOLOGY

by

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DECLARATION

I, Pavla Phitlhelelo Mokoena, ID 7807200197068, declare that the contents of this dissertation represent my own unaided work, and that the dissertation has not previously been submitted for academic examinations towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

_____   ____**22 October 2022**____
Signed   **Date**

ABSTRACT

Discourse on the transformation of higher education from a consumption value point to an indication that Generation Z university students are the most affected by the education transformation process. Shifts in teaching practices and learning environments make it a constant challenge to understand the gap between tested and unknown pedagogical practices in tourism departments at Universities of Technology (UoTs) in South Africa. The Covid-19 pandemic has added to factors that impact on teaching and learning activities. Universities have gone to great lengths to respond to challenges brought about by the pandemic to provide facilities and resources for students during remote learning. The Covid-19 emergency implementation plans, referenced as ERT, implemented by the Council on Higher Education, were effected with clear guidelines of strategic goals that needed to be achieved to complete the academic agenda during the pandemic. Insights into students' perceptions and learning experiences during this period might assist in revealing gaps between what students experienced and what educational leaders assume as critical factors for blended/hybrid learning. The aim of the study was to explore learning preferences of Tourism Management students at selected UoTs in the interest of engaging in learning, determining engagement within the various learning environments and ascertaining whether the Covid-19 pandemic had any impact on students' learning preferences. Research on students' experiences and perceptions during this period highlighted glaring challenges related to remote learning and provided deeper understanding of students' study practices.

The pragmatic approach of the study allowed for navigation of the research process at a time the impact of the Covid-19 pandemic was heavily felt. A questionnaire surveys involving N=147 online participating students at three UoTs was followed by two focus group interviews with N=8 participants using an explanatory-sequential research approach. The results indicated a significant preference for contact classes as opposed to remote classes $p = .0098$. The kinaesthetic learning style was the most preferred in the classroom (45%), with students indicating a need for activate-participatory face-to-face sessions, while the diverger learning style was the most preferred remote learning approach. In line with the survey results, all focus group interviewees/respondents professed conducting research on new content before either attending class or discussing elements they did not understand with peers to cement learning. Challenges experienced during remote learning were linked to issues of connectivity for access to learning, lack of social interaction leading to impacts on students' mental wellbeing and resulting in a further widening gap to education access and success. Blended/hybrid learning is a possible standard for HE teaching and learning practices in South Africa. It is hoped tourism departments, institutions and government would consider recommendations of the study as long-term strategies that could include partnerships with all critical stakeholders,

according to the ERT principles, in addition to the proposed student-focused framework guidelines presented for successful implementation of chosen blended/hybrid models.

Key words: Covid-19, blended model, hybrid learning, learning preferences, tourism studies

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DEDICATION

To my family who have been my pillar of strength throughout this journey.

Bo-Mokoena, Lethole, Setlhabi, Seane

phitlhelelo keo

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4IR	Fourth Industrial Revolution
Covid-19	coronavirus pandemic
DBE	Department of Basic Education
DoE	Department of Education
DoH	Department of Health
DHET	Department of Higher Education and Training
ERT	pandemic emergency implementation
UoT	University of Technology
USAF	Universities South Africa
WHO	World Health Organisation
VPN	Virtual private network

GLOSSARY

Term

Generation Z   millennial generation born between 1995 and 2005

Loadshedding   (aka load shedding) is scheduled power outages by municipalities of power suppliers

CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction and study background

Since 1994 South African education has gone through significant restructuring processes, such as *"education finance reform, curriculum reform, and the teacher rationalization process"* included in the report on educational change in South Africa between 1994 to 2003 (South Africa. DoE, 2001:20-24; World Bank, 2004:29; Badat & Sayed, 2014:130; Mokoena, 2020: 330). This has served as a driving force to create an education system suited for the country's requirements for equitable, quality education.

Although the South African government is making concerted efforts to improve the quality of education (South Africa, 2018:22–31), there are still challenges regarding the capacity of universities to support student learning and the level of inclusivity in higher education (South Africa. DoE, 1997:29-8–34; South Africa. DoE, 2001:11–13; Hlatshwayo & Shawa, 2020:30). Several studies have explored challenges facing higher education, including assessing the higher education environment that the "millennial generation" in South Africa is absorbed into (South Africa. DoE, 2001:39; StatsSA, 2019:79; DHET, SA, 2018:31). Lange (2017:43) argues that more needs to be understood regarding factors affecting how students learn within higher education.

Bowen et al. (2005:376) argue that there are personal and institutional reasons for students to disengage from their learning environment. Krause (2006:8) raises an issue around the "the level of student engagement at university, and impact thereof on course attendance". The idea that "students learn best when they are active" (Tesfaye & Berhanu, 2015:29) resulted in changes to teaching models, including "the flipped classroom model" and the integration of online content interaction (Shalev-Shwartz, 2012:108). Much of the debate on reforms in higher education in South Africa, has, however, focused on the transformation of education and centres around transformation from a colonial identity to an Afrocentric curriculum (South Africa, DoE, 2009:90). The discourse has largely ignored changed and changing profiles of the youth and students who are Generation Z. The current school learners and university students are the generation most affected by this education transformational process (Kasasa.com., 2019). Covid-19 pandemic has one of the most rapid impacts on teaching and learning activities, which has further created another catalyst to transformation of education (Mthethwa & Luthuli, 2021: 91-101).

This study reassesses the discourse on the transformation of higher education from a consumption value point of view (Alstasaeter & Sievertsen, 2009:2-9) by reviewing how the client, in this case the student, prefers to accumulate his/her knowledge (Simon, 2020:4).

1.2   Rationale for the study

Industries around the globe look to higher educational institutions to continuously respond to changing industry demands and produce employable graduates. Thus, universities aim to ensure alignment of their graduate skills and knowledge with an evolving working environment (Sutherland, 2020:234), which means producing graduates who are intellectually and technologically equipped (Bilbo et al., 2000:78).

Like all changing industries and changing consumer demands, successful higher educational institutions should be able to respond timeously to these changing customer needs to stay relevant and in demand (Le Roux & Nagel, 2018:3). For tourism programmes, particularly at UoTs, to attract and retain good students, the offerings must provide learning spaces and platforms that are more suitable to the requirements of the "new-age learner" (Carolissen & Kiguwa, 2018:2).

Given that changes and industrial adaptations are occurring at a faster rate than before (Cilliers, 2017:191), which also has an impact on training programme design, continuous evaluation of how students prefer to learn and consume information requires analysis. This is to ensure educational adaptations and implementation of technology within learning spaces, which the DoE South Africa promotes for effective learning (Mpungose, 2019:934-935) and student engagement (Le Roux & Nagel, 2018:4) are in line to yield anticipated results.

1.3   Review of the literature

1.3.1 Implementation of education standards and processes in South Africa

The research report on education sector landscape mapping by Taylor and Shindler (2016: 4-13) provides a synopsis of the design process South Africa's education departments. The Department of Basic Education (DBE) and the Department of Higher Education and Training (DHET) undertook to outline frameworks surrounding structures, governance, and management of the South African education system (Taylor & Shindler, 2016:5). Higher education institutions design their programmes around these quality structures to meet set standards, including curricula (DACUM, 2012:1–5). Added to these, dialogue around university specific programmes also occurs at academic conferences, seminars and planning discussions, policy adjustments, and planning sessions, all of which take place at high levels of leadership (PMG.org, n.d.; Universities South Africa (USAF), 2020a). Continuous improvement of the academic landscape of South Africa, continues to be an important factor in higher education to ensure success.

The realities around developments and impact of technological innovations on higher education, including the 4th Industrial Revolution (4IR) and technology/technology subjects and

ways of thinking, have been a critical debate on how alignment in schools could be created to enable an environment ready for technology adaptation (Sackey et al., 2017:115; Penprase, 2018:209–214). Implementation of these ideas in the schooling environment has not effectively materialised and this was made evident by the impact of the Covid-19 pandemic outbreak, which hit the world in 2019, with the full effect felt in South Africa in March 2020.

The early months of 2020 saw the global outbreak of the Corona disease (Covid-19) pandemic defined by the World Health Organisation (WHO, 2020a) as an:

> infectious disease caused by a newly discovered coronavirus, that spreads primarily through droplets of saliva or discharge from the nose when infected persons cough or sneeze.

As alarming number of people around the world fell sick and some died from the outbreak, resulting in many countries around the world opting to limit movement of people in an effort to limit the impact of the virus; drastic action was needed. According to the (World Health Organisation, 2020b), up to the 8th of April 2020 no specific vaccines or treatments had been developed. The situation report at the time (WHO, 2020a) indicated 1 353 361 confirmed global cases, with new cases developing by the day amounting to 73 639. South Africa exhibited the highest number of cases on the African continent at 1 749 confirmed cases, with new cases also appearing by the day.

On January 23rd 2020, China became the first country to introduce stringent measures to reduce the movement of people, which is now known as the "lockdown", meaning that authorities instructed citizens world-wide, including South Africa, to restrict movement in or out of infected cities to curb the spread of the disease (The Guardian, 2020). As the pandemic increased and more people contracted the virus and fell sick, major cities, countries and regions closed their borders and restricted movement of all persons. As a result, as cases in South Africa increased, the government also introduced a 21-day lockdown (CBNC Africa, 2020) in an attempt to curb the spread of the disease.

The impact of these technological developments in education, which were adversely amplified by the pandemic, on Generation Z learning processes requires scrutiny (Rothman, 2016:4; Mpungose, 2020:2).

1.3.2 Students' learning styles

Students' learning styles or profiles indicate the learning preferences of the individual as well as pinpoint the possible strengths and tendencies that are likely to cause successes or difficulties in academic settings (Suls & Green, 2003). Every person has a way of gathering and processing information, which means ways of learning and solving problems in day-to-day situations (Snydell, 2000; Murphy et al., 2004:859-861; Shirazi & Heidari, 2019:2). These

personal cognitive abilities, acquired in the course of a long socialisation process, are called "learning styles", which can be defined as the individual, natural, and preferred way for a person to treat information and feelings in a certain (learning) situation, which will influence their decisions and behaviours (Barmeyer, 2002:92; Shirazi & Heidari, 2019:5).

There are different kinds of learners, ranging from the active and reflective learners, sensory and intuitive learners, visual and verbal learners to sequential and global learners (Suls & Green, 2003; Hofstede, 2001; Felder & Brent, 2005:58-62).

Generation X and millennials, or Net generation as referred by Oblinger and Oblinger (2005) and (Rothman, 2016:1-2), still pose challenges and efforts are being made in the South African higher education space to assess student learning styles and the use of online platforms. Rithika and Selvaraj (2013:638) indicate that, in India, which is the third biggest country in the world based on internet usage, students spend a huge amount of time on online platforms. Rithika and Selvaraj's study (2013:638) also found that students tend to absorb information without proper information filtering, which is a definite disadvantage in the learning process. A look into the numbers and resurgence of online courses at degree and diploma level and whether these are competition with mainstream university qualifications, is necessary. Although technology is a big part of the lives of the younger generation, their preferred forms of learning still need to be confirmed, as proposed by Tesfaye and Berhanu (2015:31) in their study on student learning preferences. Student learning types and models are elaborated on in Chapter 3 of the study.

Active learners learn by doing something in the external world, through discussing, testing, or explaining information in specific ways, while reflective learners learn by examining and manipulating the information introspectively. In other words, the active learner and the reflective learner are closely related to the extravert and introvert, respectively, according to the Jung-Myers-Briggs model (Hur & Kim, 2007:e18). Sensory learners learn by observing and gathering data through the senses, while intuitive learners learn by involving indirect perception, unconsciously-speculation, and imagination hunches.

1.3.3 Classification of learning styles

Since the pioneering of the Myers-Briggs Type Indicator (MBTI) and learning styles in 1943 (Harrington-Atkins, 2017), adaptations of styles have been tested in various settings to foster top performance from the participants involved in the various studies. Within the academic space, academics have been probing the balancing act of responding to varied learning styles, so ensuring that all students' learning requirements are adhered to. In a literature review of studies focusing on learning styles, Newton (2015:1-2) notes more attention to the following assessment tools used in the studies reviewed on students' learning styles:

- VAK learning style – originally developed by Walter Burke Barbe and later adopted by Niel Flemming to include the VARK and VACT learning style groupings or categories (Macmillan, 2018). This learning styles focuses on the following categories of people: visual learners – those who can absorb information by sight; auditory learners – those who absorb information by sound, and kinaesthetic learners, that is, those who are participatory learners and absorb information by being active (Macmillan, 2018).

- Myers-Briggs Type Indicator (MBTI) – is a personality measure first developed by Ms Isabel Myers and redeveloped in 1962. Within the academic context, although criticised by Stein and Swan (2019:9), the test is used to define students who are aware of their innate psychology, allowing them to judge their best style of learning. "The Indicator aims to ascertain, from self-report of easily reported reactions, people's basic preferences in regard to perception and judgment, so that the effects of the preferences and their combinations may be established by research and put to practical use" (Myers, 1962).

- Kolb model classification – The Kolbe A Index was developed in 1993 and is mainly used in social sciences to develop self-awareness and drive personal achievement (Kolb & Kolb, 2005b:167; Lingard et al., 2005:12-13). In a study by Wonghchai (2003:5-6) the Index was used to evaluate students' attitudes and achievements within a specified learning environment.

- Felder Silverman – The Felder-Silverman model was developed in 1988 by Professor Richard M. Felder and psychologist Linda K. Silverman. It classifies students in four dimensions of the model, namely: a) Perception (sensory x intuitive); b) Retention (visual vs. verbal); c) Processing (active x reflective) and d) Organisation (sequential vs. global). In studies, the model is used to ascertain the most effective use of resources in various formats to learning to improve learning (Da Silva et al., 2017:121).

There is tremendous use and focus on student learning styles in education, with Papadatou-Pastou et al. (2018: 3) indicating that 90% of academic papers on student learning focus on student learning preferences. However, there is also growing criticism of the results of many of the studies focused on adopting a particular learning style as a dominant factor to success (Stein & Swan, 2019:9). Critical papers by Kirshner (2017:167-168) and Cuevas and Dawson (2017:42) propose that there is limited evidence of a scientific basis of the tools, which seems to suggest that academics should adapt to students' preferences of learning to promote academic achievement. Papadatou-Patou et al. (2018:3) might have had the same viewpoint, but their study indicate that course instructors believe teaching tailored to students' learning styles does foster positive results. It is of interest to note that the authors reported that adapting teaching to students' preferences could be "hit-and-miss" that could affect students'

performance. Based on this argument, the design of this study includes in the research tools elements from the VARK, Kolb and Felder-Silverman models in specific sections of the research tools, which will deal with learning styles, students' awareness of their own academic engagement as well as students' awareness and impact of the learning environment on academic performance and engagement. An explanation of inclusion or exclusion of models into research tools is discussed in Chapter 3, where theoretical frameworks considered for this study are discussed in detail.

1.3.4 Studies on tourism students' learning preferences

Institutions of higher learning focus on promoting the flipped classroom model to improve student participation and academic performance (Anderson, 2016: 54) by adopting various teaching and learning styles in every teaching encounter (Newton et al., 2012). The flipped classroom approach is aimed at encouraging students to be self-regulated in their learning, and increase class participation and performance (Lai & Hwang, 2016:127).

A literature review of studies (see Table 1.1) focused on evaluating students' learning preferences indicate a link to evaluating certain course practices, changes in the teaching models or forms of teaching practices. Themes of the research include comparison of web-based courses to face-to-face tuition (learning environment) (Zacharis, 2011; Jose et al., 2019) and evaluation of flipped teaching models or blended learning practices (Page et al., 2017; Cuevas & Dawson, 2017; Elmaadaway, 2018; Le Roux & Nagel, 2018). A study by Landon (2019) focused on students' perceptions of learning in the 21st century, assessing which learning practices students deemed important for their learning. All of these indicate the importance of students' learning preferences and multiple learning scenarios.

Table 1.1: Literature review of student perceptions of learning preferences

Author(s) & Year of publication	Study focus	Methodology	Results
Zacharis, 2011	How individual learning styles play a role on course selection (comparative study of online and face-to-face course). Study reviewed learning environment and learning styles.	12 item questionnaires adopted from Kolb Learning Style Inventory (LSI)	Students in online courses mostly dominated the Accommodator and Assimilator learning styles while face-to-face cohort fell into the Assimilator and Diverger learning styles. No difference between traditional and online groups in academic performance.

Page et al., 2016	Review of student perceptions and outcomes of first-year students, from a blended learning course and a shift to online teaching.	Qualitative questionnaire (MCQ)	Blended learning model improved academic performance, and contrary to that, the shift from blended learning practice to online tuition proved detrimental to student performance, with evidence of reliance on team-based activities to pass. Student perception feedback still rated lecturer interaction as very important.
Elmaadaway, 2018	Students' perceived level of engagement (comparative study of face-to-face and flipped classroom modalities).	Structured questionnaire. Review of student participating in flipped classroom versus face-to-face tuition.	The flipped model showed significant results of class participations compared to the face-to-face. Increased student engagement from the flipped classroom model.
Cuevas & Dawson, 2017	Comparison of dual coding to learning style teaching	Questionnaire on preferred learning styles	No major difference in preferred styles of learning. There was a slight difference with a higher main effect of visual learners retaining twice the amount of information compared to auditory learners. Study suggests learning style instruction is ineffective
Le Roux & Nagel, 2018	Investigating the best flipped class blend between face-to-face and blended class teaching	Mixed methods consisting of trace data, quantitative and qualitative student feedback	Lower grade distributions students performed better in traditional classroom (face-to-face) and higher distribution students performed better in flipped classroom class. A good configuration is proposed to maximise benefits of the blend.
Jose et al., 2019	Learning style impact on course choice and performance	Original survey questions	Students' lifestyle, rather than independent learning style preference was core motivator for course choice.
Landon, 2019	Analysis of students perceptions of the importance of the 4Cs ("learning based on the P21 Learning and Innovation Skills") in their learning: collaboration, critical thinking, communication and creativity.		Positive feedback of the 4Cs, and an indication for educational leaders to continue incorporating the designs in daily teaching.

Source: Researcher's construct

The main theme emanating from these studies highlights the importance of developing blended learning as a future focus of learning in higher education and consideration of the concept of students' learning preferences in higher education curriculum planning as critical in the success of teaching and learning practices.

1.4   Problem statement

Despite the opinions and views gathered from literature, about progress in education practice there are still gaps as far as responding to the academic expectations of university students, which is becoming a challenge for lecturers and institutes of higher learning and must be solved to retain students and help them become self-sufficient employers and employable graduates. As with the worrying high levels of dropouts at secondary schools, the fast-paced shifts in teaching practices and learning environments make it a constant challenge to understand students' requirements. Universities have gone to great lengths to ensure the development and availability of facilities and resources for students, with the drive to improve academic performance. It is increasingly important to have insight into students' perceptions as this might assist "in revealing gap between what students' experience and what educational leaders assume" (Landon, 2019:13).

Of interest to the researcher is a study evaluating literature on students' learning styles by Rohrer and Pashler (2012:634) reporting that although there is a plethora of research on trying to understand student preferences, tailoring teaching to students' preferred way of learning in the literature evaluated did not yield positive results. This finding begs the question: will the adoption of blended/hybrid models as another form of teaching style or platform to respond to student learning preferences yield results? Advancements in technology are a force that enable transformation of teaching and learning, specifically in universities of technology (UOTs) (Pavlik, 2015:113) as evidenced in some of the literature evaluated in this study (Page et al., 2017; Cuevas & Dawson, 2017).

1.5   Aim of the study

The aim of the study was to explore learning preferences of Tourism Management students at selected UoTs in South Africa in the interest of engaging learning. Exploring preferences in teaching, learning modes, and environment of Tourism Management students at selected UoTs in South Africa, will assist understand which learning models and learning environments create best academic results from the student' perspective.

1.6   Research objectives

The perception of the "Generation Net" or "Millennials" is that they have an over-dependency on technology which, in many cases, is not education-directed and therefore affects their

academic performance in a negative way. Universities are advocating more online integration of courses and introducing a "flipped classroom" (Flipped Learning Network, 2014; Brewer et al., 2019: 410) and blended/hybrid learning models (Kinshuk et al., 2004:184; Rickes, 2016:30–32). Several learning management platforms are trying to accommodate the varying learning styles of students, but not achieving any positive results (Zhang, 2004:233–234; Othman & Amiruddin, 2010:654).

The study objectives were to:

- Investigate students' learning preferences in tourism programmes at the selected UoTs in South Africa.
- Evaluate current forms of student engagement in tourism programmes at the selected UoTs in South Africa.
- Assess students' perceptions of learning environments of the selected UoT Tourism Management programmes in South Africa.
- Establish the profile of Tourism Management students at the selected UoTs in South Africa.
- Consider the impact of Covid-19 on students' learning.

The research questions were:

- What are the learning preferences of tourism students at the selected universities of technology in South Africa?
- How do learning preferences of tourism students influence academic engagement at the selected universities of technology in South Africa?
- What are students' perceptions of learning environments at the selected universities of technology in South Africa?
- What is the profile of a tourism student at a university of technology in South Africa?
- What impact did the Covid-19 pandemic have on student learning?

1.7   Research methodology

The study followed an explanatory-sequential enquiry to investigate learning preferences from tourism students' viewpoint to add to the body of knowledge around teaching and learning practices in the field of higher education (Leavy, 2017:5). The nature of this study necessitated following a post-positivist paradigm for this enquiry (Creswell & Creswell, 2017:16-20). As multiple measures of the phenomenon of students' learning preferences crucial is to understand (Williams et al., 2020:10), a mixed methodology approach was employed to collect data pertaining to the learning environment of tourism programmes within selected UoTs in

South Africa. Census sampling for surveys was applied and voluntary sampling call for focus group interviews was employed (Jain & Ohri, 2020:55).

1.7.1 Population and sample

The primary sample for this study was undergraduate and postgraduate Tourism Management students at all study levels in four selected UoTs in South Africa. Two coastal and two inland UoTs were identified based on the vocational focus of their three-year undergraduate programmes and similarity in course design. The institutions each have an estimated capacity of 300 registered students, resulting in a study population of N=1200 students from the four selected UoTs.

Data collected focused on the profile of students registered in the Tourism Management programmes, how students preferred to learn and to be taught, what methods of teaching were perceived beneficial for learning, and to investigate the perceived conducive environment for learning. From this feedback, data on preferred learning styles of students was envisaged and the data could also provide insight into where these students perceive gaps exist in the current higher education system relating to teaching and learning practices.

1.7.2 Sampling technique

A convenience sample of undergraduate and postgraduate students registered for the tourism three-year diplomas and a fourth-year qualification at four selected UoTs was used for this empirical study (Kotari, 2004:16; Bhattacherjee, 2012:69). To obtain a representative sample, the institutions chosen for this study included two coastal and two inland UoTs.

1.7.2.1 Data collection instruments steps

Step 1 – Ethical clearance was sought from the research committee at CPUT and approval for data collection from each Tourism Department HOD of each identified participating HE institution was sought.

Step 2 – A contact lecturer was approached at each institution to assist with data collection.

Step 3 - Data collection 1 - A convenience or census sampling technique of all the tourism programmes cohorts was applied. An online survey link was sent to each contact-academic to assist in sending the link to students.

Step 4 – Data collection 2 – Interested students were invited to participate in an online focus group discussion to debate learning style preferences.

1.7.3 Research instrument

To ensure validity and reliability of the study instrument, a pilot study was conducted with postgraduate Events Management students at the Cape Peninsula University of Technology (CPUT). The pilot study was used to indicate if the instrument for the focus of the study directly linked with the problem statement and provided relevant data for the aim of this study. The questionnaire for student focused on the learning tactics and preferred modes of learning and collected feedback on students' academic performance in various learning environments, and perspectives of the impact of Covid-19 on their learning.

Online surveys using a questionnaire designed on Lime Survey to collect data from study participants at the identified UoTs was used (Leavy, 2017:16–19). Focus group interviews were conducted on the Blackboard Learner Management System to further probe aspects from the survey and, most importantly, to assess respondents' perceptions of their learning preferences.

1.7.4 Data analysis

As the earlier steps on the research tools have indicate, data collection was employed and analysis of the quantitative data from the questionnaire was conducted with the SPSS 2.0 analysis software. Qualitative data was analysed using the Atlas.ti 22 programme.

1.8 Ethical considerations

The University's Ethics Committee took several aspects into consideration when ethics approval for the research was considered. Ethics approval was requested from the Faculty of Business and Management Sciences Ethics Committee of the CPUT to conduct the research (Certificate No. 2021 FMBSREC 050). After contact was established with lecturing staff within the identified sample group, permission letters from HODs of the tourism departments of the UoTs participating in the study were requested and received for collection of data. After a screening process of the application to conduct research for the study, ethics approval was received.

The focus of the study was explained to participants before any data was collected. The voluntary process was explained to the students and staff at the participating UoTs, and participants were assured of their anonymity to ensure trustworthy feedback. Students were also advised that they could decline to answer any specific questions or decline to participate in the study should they wish to.

1.9   Global developments impacting the study and education landscape

The initial announcement of the lockdown by President Cyril Ramaphosa meant that businesses, schools and all non-essential operations would have to close their doors for 21 days and for South Africans to stay at home (SA News.gov.za, 2020). The expected return to normal did not happen and the lockdown had to be extended due to persistent spread of the virus. This saw a scramble for businesses, schools and higher educational institutions to continue normal operations remotely and migrate education online (DHET, SA, 2020b; Reiersgord, n.d.) which provided a good opportunity to pursue this study into new methods of instruction. As the focus on remote learning as the pandemic continues becomes, this could pose a challenge to data collection.

The initial plan for data collection was based on university visits to allow for completion of paper-based surveys from each participating UoT. When the outbreak and subsequent lockdown was introduced, the planning soon migrated to planning for online surveys, which proved to be a challenge as some universities had managed to put systems in place and had full functioning platforms for online learning through their learner management platforms. Other institutions experienced major problems with remote learning and opted to continue with face-to-face teaching and learning, which was always affected by changing lockdown levels and restrictions, resulting in on-and-off academic programmes, making it impossible to plan for data collection (SABC News, 2020). As institutions got planning and implementation of online learning going, a further challenge was the academic terms, which were "out of sync" from one institution to the next.

1.10   Study limitations and delimitations

The core focus of the study was to assess the learning preferences of students in relation to the learning environment at their institutions of higher learning. The outbreak of the COVID-19 pandemic shifted thinking of institutions to online learning as a preferred method of teaching. This situation presented both an opportunity and a challenge for the study as the education platform globally changed due to the Covid-19 outbreak, with reports that education could never be the same as the pre-pandemic era (Saavedra, 2020). Online learning, in itself, already posed a number of challenges for many nations globally, including South Africa (Rothman, 2016:4). Although the pandemic had shifted global focus of education towards online learning, this was not the initial focus of the study, but it directed towards understanding the preferred learning settings of students and definitions were particularly delineated to online learning. However, due to the focus on online learning because of the pandemic outbreak, the focus of the study was impacted.

The study was restricted to UoTs offering Tourism Management studies in South Africa. Traditional universities, which are more professionally orientated, were excluded from the study as the focus was on UoTs, due to the nature and design of their study programmes.

1.11 Definition of terms

4IR (4th Industrial Revolution) – the Fourth Industrial Revolution is viewed as the result of integrated and compounding effects of multiple exponential technologies like artificial intelligence, robotics and the development of synthetic organisms. Generations have gone through developments that impact on how we live. The Fourth Industrial Revolution is a concept widely used to explain the emergence and impact of technology on livelihoods. In progression, the First Industrial Revolution arose from harnessing water and steam power to improve manufacturing processes. The Second Industrial Revolution saw the introduction of electricity, which bolstered productivity, and the Third Industrial Revolution derived from computerisation and web-based interconnectivity (Penprase, 2018).

Curriculum – curriculum is more than subject matter or an outline of the content of a subject. It includes teaching styles, learning outcomes, classroom organisation, and assessment styles (Carr, 1998).

#Feesmustfall – a student-led protest movement that had an impact on all universities in South Africa between 2016 and 2019. The core focus of the movement was for the decolonisation of university education, and fee-free education (Langa et al., 2017).

Flipped classroom – a type of blended learning where students are introduced to content away from the classroom, then work through the content in the classroom to reinforce learning. The purpose of this technique is to foster active participation learning (CPUT Teaching and Learning Report, 2020:19).

Generation Z – the generation that is currently in school and university entrants (born between 1995 and 2005) (Kasasa.com., 2019). Rothman (2016) states that they were born between 1995 and 2010). Various publications differ on the end date of this generation.

Learning environment – the place where learning takes place. This place can be a physical environment like a classroom, the instrument or media used to learn, as well as the assessment methods (Zhang, 2004: 234).

Learning modes – the process of how learning occurs. Some modes are traditional where the instructor is in control and transmits information to students. Other modes are students-

centred and enquiry-based, where learners explore certain concepts to understand them (Othman & Amiruddin, 2010).

Learning preferences – the most effective and efficient modality or natural way in which students perceive, process, store, and recall new information (Othman & Amiruddin, 2010; Prithishkumar & Michael, 2014).

Learning styles – personal strategy and technique used by individuals to study; this means the method used in processing and obtaining information or knowledge. It involves the individual's tendency to perceive and process information (Othman & Amiruddin, 2010).

Load-shedding – measures implemented by municipalities in conjunction with electricity suppliers to intermittently switch off electricity at pre-agreed intervals as a strategy to mitigate overloading the grid, which could lead to a country-wide blackout (Polokwane Local Municipality, n.d.:1)

Millennials – (and the Millennial Generation) are known as Generation Y (born between 1980 and 1994) (Kasasa.com, 2019).

New-age – as attributed to the term modern, "is a current or recent style or trend in art, architecture, or other cultural activity marked by a significant departure from traditional styles and values" (Lexico Oxford Disctionary, n.d.).

New-age learner – an individual who has a way of thinking arising from the late 20th century Western society and adapted from a variety of ancient and modern cultures that emphasize beliefs outside the mainstream (Merriam-Webster Dictionary, n.d.).

Teaching practices - practices that teachers/lecturers use to adapt to the way their learners learn in a way that creates a connection between themselves and learners This desired course contents and to develop achievable goals (Sarobe, 2018: 58).

1.12 Chapters layout

Chapter 1: A general overview of the study is provided, and the current student profile outlined. The study background, rationale, aim, and objectives are provided. The chapter outlines a short synopsis of the history of education in South Africa and offers definitions to concepts used in the study. The research process is outlined, and study setting delimited. The significance of the study is discussed, and limitations highlighted

Chapter 2: Perspectives on factors that impact on students' learning are discussed. Literature on the history and policies influencing curriculum design and study environment design is discussed. This includes documentation on university-specific teaching and learning policies

as well as teaching and learning strategies. A discussion of the education direction/plan for the future of South African learning space is offered.

Chapter 3: This chapter unpacks models of learning and elaborates on students' learning types. An analysis of studies on students' preferences is presented to assess the focus of academia on this aspect. The difference between learning style and teaching styles are discussed.

Chapter 4: The research methodology is discussed, and the study is delineated. The study sample, research sampling methods and research tools are discussed. The research tools and design are elaborated.

Chapter 5: Results of the study are discussed in Chapter 5.

Chapter 6: A proposed model is presented and discussed.

Chapter 7: Discussion and study recommendations as well as study limitations are outlined.

1.13 Summary

The discussion in this chapter highlights the thinking that there are several aspects linked to students' performance at institutions of higher learning. Studies tend to focus on either teaching practices or students' personal issues as impacts on their academic performance.

The next chapter focuses on what the South African education agenda needs, the design of the curriculum as well as challenges facing higher education in South Africa.

CHAPTER 2

LITERATURE REVIEW: TEACHING AND LEARNING

2.1 Introduction

Chapter 1 offered an overview of the study, including the study aim, objectives and methodology followed. Building the framework for this study, this literature chapter attempts to debate factors affecting students' way of learning, that is, possible factors that impact on their learning. The driving force of higher education success in South Africa is academic performance of institutions, which is judged by throughput. The aim of this study is to explore learning preferences of Tourism Management students at selected UoTs in South Africa in the interest of engaging learning to accomplish students' success and, ultimately, prepare them for the workplace with suitable qualifications. Student participation and success in HE is based on a multitude of factors (Mlambo, 2011:81). Kolderie (1990:22) argues the point that that research needs to have a multi-faceted approach in assessing impacts of these factors on education.

One of the facets McGhie (2013:70) suggests and argues is that social impacts should be an important consideration in research around the success of student learning. The impact of social factors in education is clearly directed by the focus of three ministries dealing with the provision of education, namely: Social Development, which deals with childhood care, Ministry of Basic Education, which oversees education at primary and secondary school levels, and Ministry of Higher Education and Training, responsible for adult education and training (StatsSA, 2019:10).

The researcher's perspective as an academic in the higher education sector is added to explain the other facets affecting students' learning in HE, which include student engagement and a review of learning practices of students as well as review of the learning environment. Lange (2017:34) asserts that *"It is* [therefore] *necessary to explore more carefully the relationship between curriculum, knowledge and identity".* In this context, understanding the relationship between what students are expected to learn, how they learn, and factors that impact on what and how they learn, is critical for faculties and institutions of HE.

2.2 Impacts on students' learning environments in South African context

In the process of undertaking this study, it was clear that in framing the study field, the researcher's observations as an academic would be critical. The literature review conducted was based on demonstrating the conceptual underpinnings of the study (Crawford, 2019:38), to provide a rationale for this study (Grant & Osanloo, 2014:12-13). The framework was built from academic research on factors affecting student learning as well as influence of the

researcher's experiences as an academic in the HE in a South African UoT, which is the research-laboratory. (Crawford, 2019:42-43) explains that researchers can apply any three bases for the development of a conceptual framework, that is, experience, literature and theory, which was the process followed in designing this chapter. Thus, the framework was grounded in the researcher's experience as an academic, supported by literature. Data from the literature outlined the map of the territory investigated (Leshem & Trafford, 2007:84; Rocco & Plakhotnik, 2009:126).

As an academic in tourism studies, teaching philosophy forces the inward focus on the tourism industry where the success of any tourism destination is built around client interest and "social access enabled by a range of factors promoting travel" (Page, 2003:47). This intense study of tourists, widely understood as market research, has driven and shaped how tourism products are positioned (Guleria, 2016:21). The tourism industry places understanding the customer as a basis to understand behaviour in relation to destinations, that experiences at destinations influence destinations, and influences of these experiences on other tourists, as seen in multiple works, including Zehrer (2009:335). As complex as tourism is, with multiple factors shaping the industry, including social, cultural, economic, ecological, technological, legal and political factors (Rate et al., 2018:2-13), the tourist is always the constant element in the success of any tourism destination or activity.

Similarly, with education, several factors have an impact on students' success in higher education. In line with the researcher's observations, similar views on student engagement were recorded at an Education Colloquium hosted by the Council on Higher Education in 2019, providing the following summary from presentations and roundtable discussions:

- Student voices matter in the design of learning environments and curriculum affecting them.
- Universities need to continually self-critique on systems provided for student engagement, and
- A holistic understanding of how students can be supported at HE is crucial (Council on Higher Education, 2019:9).

Observations by academics internationally (Kahu & Nelson, 2018:8) and in the South African HE landscape (Vogel & Human-Vogel, 2016:1300) suggest that these issues cannot be ignored when assessing practices around student learning. Higher education in South Africa needs to continue breaking barriers in improving the university learning environment (Hlatshwayo & Shawa, 2020:32). Eksteen et al. (2018:41) and Tremblay-Wragg et al. (2021:98) identify aspects that impact student engagement, including the design of timetabling or class attendance design, teaching practices, and the learning environment as important

issues impacting student engagement, and that need continuous focus for improved learning at universities. Likewise, issues surrounding student preparedness (Krause, 2006:2) for HE and adaptation to teaching strategies used in HE are included in the discussion, with another critical issue being socio-economic factors (Mlambo, 2011:81). This chapter provides a *"visual display of the working theory, regarding the phenomenon to be studied"* (Maxwell, 1996:25).

With a strict delimitation of the study developed from the conceptual framework, Johnson et al. (2020:140) advise on considerations for the development of a rigorous and effective conceptual framework. The authors warn against concepts that researchers might miss due to a too highly focused search. As a mechanism to mitigate this limitation, a search of available literature on research around students' preferences was conducted. This was to determine what the focus of these studies were and any other concepts of importance that could arise from the literature search that were not specifically considered for this study and, as a result, excluded from the researcher's concepts. A summary of the search, presented in Table 1.1 (Chapter 1), indicates a focus on causal research studies of teaching practices and impacts of technology on student learning, and one study that investigated learning style preference. A further review of the literature on factors that impact on student learning preferences is presented in Table 3.1 (Chapter 3). This review included studies that focused on the assessment of students' learning styles, and the results that emerged from studies pointed to the following: relationships between teaching styles and learning habits; impact of technological advances on learning; and demographic factors having an impact on student learning. Based on this background, the literature presents concepts that impact student learning habits in higher education and reviews learning styles critical to student learning.

2.3 Conceptual framework: issues affecting student learning in higher education

In this study, the researcher as a lecturer in the tourism department at a UoT, shares experiences through class observation, continuous student feedback, and collaboration with external partners in higher education and provides an overview of three main critical factors affecting students' academic performance. The researcher's views point to students' learning preferences because of students' learning capabilities or abilities, the learning environment - typically considered as the classroom or site of teaching - which impacts on their engagement, as well as students' backgrounds, and how they are taught. This view is supported by Romanelli et al. (2009:2), who suggests that students' learning environments, as well as technological impacts on this environment, should also be taken into consideration when reviewing students' learning preferences.

The discussion in this chapter expands on these factors as the guiding tools of this study, providing an integrated way of viewing the phenomenon to be studied and the flow of the

research (Adom et al., 2018:439). Although the study sough to assess learning preferences of students, these elements cannot be viewed in isolation from other factors impacting on students' learning (Leka & Kika, 2018:195). This approach of drawing from the researcher's experiential knowledge and prior theory from research to present a conceptual framework of a study is supported by the literature (Rocco & Plakhotnik, 2009:126; Maxwell, 2013; Crawford, 2019:39). Maxwell (2013:45) further elaborates that a researcher is an integral piece of the research process, whose background knowledge cannot be dismissed as bias and states that "*separating your research from other aspects of your life cuts you off from a major source of insights, hypotheses and validity checks*".

Section (2.3) discusses aspects of this study from the lecturer'/researcher's perspective and summarises, with supporting literature, factors impacting students' learning in higher education. Figure 2.1 outlines the conceptual framework structured on three main variables based on:

- Students' personal attributes, which are students' learning styles,

- issues of the learning environment, which depict issues related to internal and external physical university boundaries, impacting on student engagement, and

- impacts of technology on teaching and learning modes and process, as major aspects impacting students' learning.

Critical elements in these variables are discussed. These include outlining the various theories in learning styles; the design of university timetables; focusing on issues linked to poor class attendance and teaching practices (Mkonto, 2015:225); outlining assumptions of unpreparedness for university; and discussing various teaching models; the impact of technology on teaching and learning as critical concepts of the conceptual framework. All these critical factors are considered by Chipchase et al. (2017:34-37) as compounds that could lead to students' academic disengagement, if there is a misalignment in students' experiences.

This framework is built from the work of Mkonto (2015:213) and Van Zyl (2017:20). Mkonto (2015:213) puts forward a supposition framed from the works of Kolb (1984), Peacock (2001) and Robotham (2003:475) that *"if a student find* (sic) *a mismatch between their own learning styles and the lecturer's teaching style, they are likely to reject the learning environment"* (Mkonto, 2015:213)*.*

The work of Van Zyl (2017:20) highlights suppositions that play a role in preparing students for higher education. This indicates there are certain skills and learning attributes students may possess or lack based on their natural learning abilities (*the role of pre-entry attributes*), skills learnt from school years, (*invitational education*), and the influence of social and economic background (*cultural capital*), which have an impact on student HE experiences.

This study takes these considerations to help develop three variables as key factors in determining students' learning preferences, which are the student's profile, which alludes to learning attributes and background; the learning environment and its impact on learning; as well as pedagogical practices implemented in HE. This literature chapter outlines the latter two elements and discussion focuses on students' learning environment and practices of teaching and learning. Chapter 3 outlines students' learning styles and further elaborates on theories that informed the design of the study. Figure 2.1 outlines a breakdown of the identified variables that were used to build the conceptual framework for the study. Student learning and success is mostly impacted by [1]how students learn (profile), [2]where they learn (environment) and [3]how they are taught (teaching practices).

Table 2.1: Learning preferences, student engagement and technology impacts: main factors impacting student success (Study conceptual model

Student learning styles	Factors affecting student engagement (Learning environment)	Learning models (Blended learning and teaching models) and technological impacts on education
• Prominent learning style theories on South Africa: **VARK** – (visual/auditory/ kinaesthetic) **Kolb Model** – (assess achievement against environment) **Felder Silverman** – (active/reflective, visual, or verbal, intuitive/ sequential)	• Socio-demographic issues (responsibilities) • Learning environment within university: 　　Design of Tourism programmes at UoTs: 　　Vocational program 　　Class attendance models – timetabling WIL design	• **Face2face model** • **Flipped classroom** • Project-based • Self-directed

Source: Researcher's construct

2.3.1 A critical view of Bandura's theory for the conceptual framework

In terms of building the framework presented in Table 2.1, the researcher's view of learning models brought about a critical review of Bandura's Social Learning Theory (SLT), also known as a Social Cognitive Theory (Figure 2.1). Bandura's Social Learning Theory explains the model of learning as deriving from social interactions and proposes that people learn from one another by observing, imitating, and modelling each other's behaviour. This definition is true in children, as children do learn by imitating behaviour observed from adults (Devi et al., 2017:722), an element which is not necessarily applicable at adult level education, but does have an impact in preparation for higher education learning and. to a degree, a learning principle still impactful at higher education level. The discussion borrows elements from the SLT, to tackle issues such as social issues and preparedness for the university environment, as some of the issues that have an impact on students' academic performance. Elements that

Chetty and Pather (2016:3) and Tremblay-Wragg et al. (2021:99) concur are critical for student success, stating that "*pre-entry academic and non-academic factors, and extra-university environment*" (Tremblay-Wragg et al., 2021:99) also have great significance in the performance of university students. These elements are critical in forming the basis of this study, and are reviewed here, using concepts from the SLT.

It is important to note that Bandura's model was used in this discussion to depict concepts critical for this study, and not to build the theoretical framework that informed the study. The discussion provides the reader with a view of the concepts critical for the study, and depicts them using Bandura's model as follows:

- ✓ Personal factors would represent students' attributes such as their learning profiles, based on their learning styles.

- ✓ Environmental factors would represent the learning environment, student's personal backgrounds/socio-demographic issues, and

- ✓ Behaviour would represent teaching and learning modes, and technological impacts on education.

The adoption of the model represents the relationship of these variables, as factors for consideration when assessing students learning preferences.
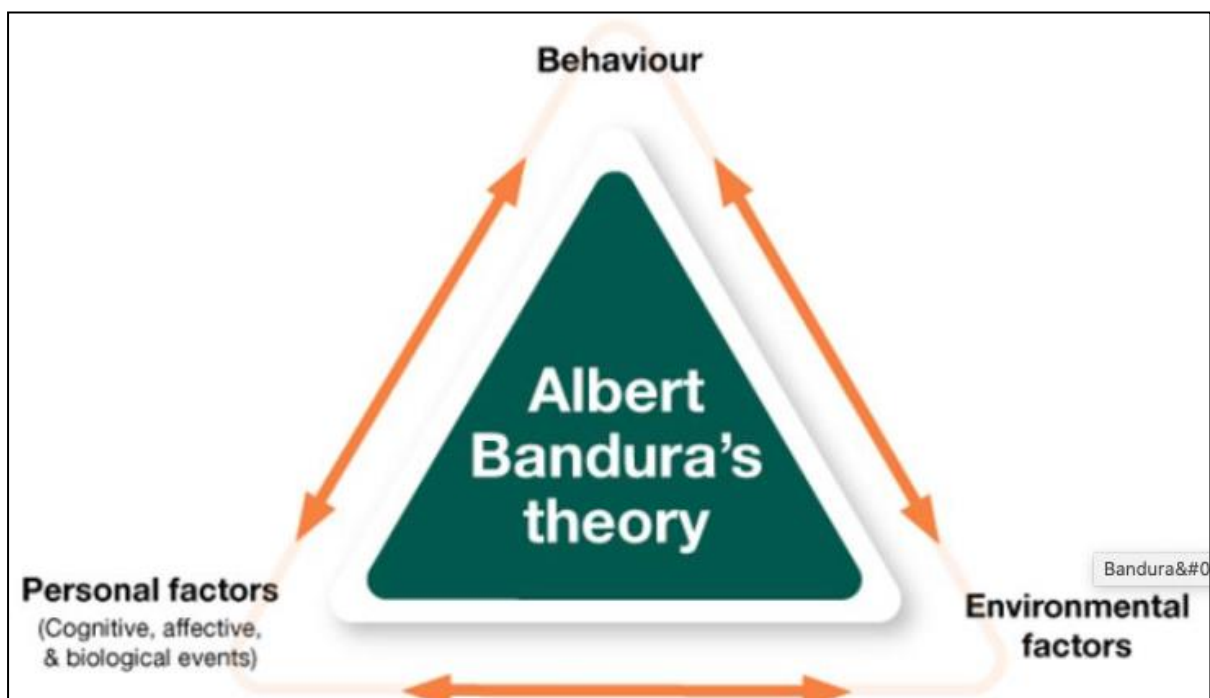
Figure 2.1: Bandura's Social Learning Theory model
Source: Kurt (2020)

The following discussion elaborates on the environmental and behavioural factors, focusing on socio-economic factors, students' learning environment, and teaching and learning practices, as well as other related issues. Personal factors, which focus on students' learning styles, are discussed in Chapter 3.

2.3.2 Consideration of the impact of social issues affecting higher education external to the university environment

The term 'environment' is defined as "the total surroundings and conditions in which something or someone lives or functions" (Aheto & Cronje, 2018:96). In this context, the learning environment defines the boundaries, resources, conditions, and practices within which students are afforded the opportunity to improve knowledge, skills, and attitudes (Aheto & Cronje, 2018:96). Before the Covid-19 pandemic, this environment for UoT students was mostly defined within two categories: first, the academic environment, which consists of a university building, spaces in which to socialise and learn. The second is the home environment, which is considered as the support base for learning outside of the confines of the university space.

This environment is based on the social backgrounds of students, which is discussed in the following section. According to Van Zyl-Schalekamp and Mthombeni (2015:32), a study should elaborate on the impacts of the home environment as a factor for careful consideration in teaching and learning. The study by latter authors highlighted living or study spaces and family structures as aspects that have a major impact on students' academic engagement and performance (Van Zyl-Schalekamp & Mthombeni, 2015:39).

A study by Xaba (2021:36-37) on students' affairs professionals highlights that students' preferences also indicate the idea of a learning environment as places of engagement, and not just the brick-and-mortar definition. The study found that students' preferences of their learning environment is split into three important elements: "*experiential and involved learning environment, safe space to freely engage and express themselves, and an off-campus outdoor learning environment*" (Xaba, 2021:37). This also relates to the condition of the environment. The more functional and well-maintained it is, the more positive the performance expected from students (Juan & Visser, 2017:5).

2.3.2.1 Socio-demographic issues

As much as learning materials and resources are an essential part of learning in any learning environment, a study by Juan and Visser (2017:2), although in a high school setting, highlights

the language barrier as a major limiting factor in learning. Differences in home language and language of instruction create a major issue for many South African students, which could be a result of socio-economic factors. Similarly, a lack of learning materials is a serious issue in higher education.

2.3.3 Factors impacting students' academic engagement within the internal environment of the university

As explained by Bond et al. (2020) from the author's research mapping of the construct, student engagement is identified as the "energy and effort" students employ within their learning community:

> Student engagement is the energy and effort that students employ within their learning community, observable via any number of behavioural, cognitive or affective indicators across a continuum. It is shaped by a range of structural and internal influences, including the complex interplay of relationships, learning activities and the learning environment. The more students are engaged and empowered within their learning community, the more likely they are to channel that energy back into their learning, leading to a range of short and long term outcomes, that can likewise further fuel engagement (Bond et al., 2020:3).

From more than 243 papers reviewed by Bond et al. (2020), evidence of three dimensions of student engagement are identified as behavioural, emotional, and cognitive (Bond et al., 2020:1). Although the focus of this research study is not to explain the context of student engagement in depth, it is interesting to note the limited uptake of studies relating to student engagement in the South African higher education context pointed out by the authors. The link between student engagement and student success in teaching and learning is critical, as these authors suggest.

Leach (2016:774) holds a different view, indicating that student engagement can be discipline-specific, as different disciplines apply different teaching methods, which could impact on how engaged students are. The author's survey focused on six scales of engagement, namely: academic challenges, active learning, student and staff interactions, enriching education experiences, supportive learning environment, and work-integrated learning. In programme and qualification design, these aspects are taken into consideration for implementation, but the challenges arise on how staff interpret the strategies and implementation plans.

For this study, the focus was on active learning, student and staff interactions, as well as a supportive learning environment. Questions pertaining to these elements were included in the survey tool as the enquiry particularly focused on the students' side and not the design or designers of the study programme. In many instances, faculties develop strategies to be accomplished by academics or how they are supposed to achieve these strategies, yet there

is limited knowledge of what students understand of these strategies or know what is expected of them during the implementation of these strategies. Some of the factors affecting students are discussed in the next section:

2.3.3.1 Issues linked to poor class attendance

The issue of class attendance continues to be an area of concern in academic spaces (Van Schalkwyk et al., 2010:632; Wadesango & Machingambi, 2017:90). Decisions to attend or abstain (refrain) from class/lectures vary vastly amongst students, with one view indicating choices based on motivations to attend, interest in the course design and preparation of the lecturer to the introduction of technology in the learning space having an impact on attendance levels (O'Callaghan et al., 2017:405). In the context of developing countries like South Africa, the impact of students' socio-economic backgrounds plays a critical role in the levels of academic participation (Dison et al., 2019:77-78). Research by the Joint Education Trust (2008:26-33) commissioned for the South African Department of Education, found that some socio-economic and school-based reasons for or contributors to poor class attendance included:

- "Transport problems, in the South African context, mostly linked to transport strikes and train issues",

- "Cancellations [of classes] without notification",

- "Lack of finances to travel to university",

- "Lack of interest from students", and

- "Poor level of ownership - since NSFAS is paying fees, once fees were paid many students disappeared from class" (Joint Education Trust, 2008:26-33).

Chetty and Pather (2016:3-5) and South African Market Insights (2020) elaborate that studies related to improving student retention at universities tend to overlook students' backgrounds and family and personal characteristics (Romero et al., 2018:3;22) as major issues in students' academic performance and attendance. Illness has also been a communally accepted reason (Schmulian & Coetzee, 2011:179).

It is interesting to note that a study by Kelly (2012) links decreased class attendance to class scheduling and travel to the campus, as perceived by students. Other researchers point towards poor levels of academic performance (Singh, 2016:1-3; Hlatshwayo & Shawa, 2020:27-28) as another factor of poor class attendance, and high levels of student drop-out. As discussed in Section 2.2.1, ineffective timetabling design (Larabi-Marie-Sainte et al., 2021:23) is another attribute to poor class attendance. The study by Schmulian and Coetzee (2011:179) also highlights timetable clashes, relating to other subjects, as one of the reasons stated for missing classes. This talks to issues of poor academic progression, meaning that

students find themselves straddling subjects (carrying failed subjects) between different levels (Mbuvha & Zondo, 2021:2).

Some of the factors linked to absenteeism are the concept of over-teaching, leading to learner fatigue, necessitating teachers/lecturers introducing creative teaching techniques (Tauber et al., 1993; Schrand, 2008:79-82). The trend of creative teaching is gradually moving towards technological adaptations and adapting teaching strategies. The term "flipped classroom" is interchangeably being used to determine interactive classes or creative teaching styles and implementation of technology into teaching practices is one of these adaptations (Pierce & Fox, 2012:4). Even with the implementation of technology to assist with teaching practices or the provision of tools to improve accessibility for students, academic participation may still prove to be an issue that requires further investigation (O'Callaghan et al., 2017:405).

The sections that follow define teaching practices and provide context into multi-modal teaching. Further, social factors are also discussed in the next sections.

2.3.3.2 UoTs academic programme design and timetabling standards

Slamat (2009:19-24) describes timetable scheduling "as a pattern of activities with the aim of keeping students engaged, to improve class-participation". Systems that influence the design of higher education timetabling at institutions of HE is an academic enigma that has been part of academic enquiry for years. The present model of 'timetable design' is based on some complex criteria, as explained by Schmidt and Ströhlein (1980:307), including the number of subjects in a course, availability of resources and participants, course requirements, and allocated school hours. Schmulian and Coetzee (2011:179) state that this approach to timetable design has been followed by universities to maintain students' participation in learning.

Some literature enquiry indicate that HE institutions have not deviated from using this 'typical system of grouping activities', providing breaks in between sessions (Larabi-Marie-Sainte et al., 2021:18-20) as a general system across institutions. Kirby-Hawkins (2018:2) argues that this design could negatively affect students' attendance patterns if planning is not practical. To explain or theorise this approach, the term "Gap Tolerance", explained by Larabi-Marie-Sainte et al. (2021:19-20) as the amount of time viewed as tolerable between activities on the timetable, is critical in the level of students' engagement. The argument by Kirby-Hawkins (2018) make it obvious that although there have been improvements in timetable design and technology behind the design, Kadam and Yadav (2016:418-419) note that a gap still exists in its effectiveness to achieve the objectives of improved use, experience what the timetable set-

up is, and what the actual student experiences are, which impacts their actions related to these timetables (Almeida et al., 2015:676).

2.3.3.3 Assumptions of unpreparedness of university entrants

Transition to post-school education in South Africa continues to have structural challenges, including the lack of financial access, inadequately resourced schools and poor infrastructure, which leads to poor readiness of university entrants as some of the major challenges (Mavunga, 2014:1749; StatsSA, 2019:22). The South African literature highlights challenges faced by university entrants (Council on Higher Education, 2010:53; Wilson-Strydom, 2012:19 Gumede, 2021). These relate to the ability of basic education to comprehensively prepare students for high school education and to proceed to university: Most South African Grade 4 learners (78%) cannot read comprehensively (McBride, 2019:146-148), which leads to long-term challenges in understanding high-level learning in higher education. Based on this evidence, it can be said that academic preparation-background does play a major role in students' preparedness for and success at a university (Tremblay-Wragg et al., 2021:98). UoTs accept students from a varied milieu, which includes socio-economic backgrounds, age differences, prior learning and experience levels, varying levels of competence, and university preparedness, as well as varying learning preferences (Prithishkumar & Michael, 2014:138; Gogus & Ertek, 2016:780; Dukhan, 2020:40). Many university students with ill-developed learning habits and skills important for university experience challenges with completing in time or drop out of university (Dison et al., 2019:77), which has been an unfortunate challenge that still (in 2022) needs to be overcome (Jansen, 2009:18).

Van Zyl-Schalekamp and Mthombeni (2015:37-39) highlight that ill-preparedness of learners for university could further be fuelled by issues such as the quality (and status) of the high school, being first-generation students, and home-language or articulation in the English Language, which is the predominant language of instruction in South African UoTs. Further assertions by Gogus and Ertek (2016:780) highlight that a lack of study skills, self-management and academic skills are also major contributors to university dropouts. Another catalyst to this problem was the breakout of the Covid-19 pandemic in the 2020/2021 academic year, which created further challenges for learners from disadvantaged schools from receiving quality education (DBSA, 2021).

Added to the personal, socio-economic and academic characteristics mentioned in the preceding paragraph, there are other issues relating to perceptions formed around students, the design of the university systems and content that must also be considered (Botha, 2018:54). These include perceived students' abilities, including reading, writing, and mathematical skills, and proficiency in the higher institutions' language of instruction which, in the South Africa context, is the English language (Matoti, 2010:136). Further investigation,

therefore, of curriculum design at HE institutions is necessary to assess what impacts these have on students' performance (Chetty & Pather, 2016:4). How students absorb information, how they learn, and how they want to be assessed is changing and higher education communities must adapt and not impose practices on students.

Lange (2017:34)) surmises that as the South African government undertook to redesign higher education from an exclusive to an inclusive focus, policies and academic structures were put in place to answer this call. Mzangwa (2019:4) implies that the redesign of higher education is hindered by a lack of implementation of policies aimed at assisting with widening access at higher education institutions. Lange (2017:34) argues that institutions and government responses to the policy structures were mainly focused on the "underpinnings for the national qualifications framework (NQF)" focusing on the learning outcomes and qualification frameworks. This indicates that further attention is required at institutional levels. Semley et al. (2016:48) highlight, in their study of tourism students, that the *"student arrive in HE with different standards of literacy and need to be equipped to recognise expectation of tertiary education".* This brings to the fore that more attention needs to be focused on closing the gap of student capabilities and complexities, and of how the teaching and learning environment can be adapted to assist HE students to succeed.

2.3.4 Teaching practices

Romero et al. (2018:3;22) sought to focus on teaching techniques as the root cause of teaching/learning problems as much focus has been placed on teaching strategies used in the classroom as a critical point in the promotion of student learning (Tremblay-Wragg et al., 2021:42). A teaching strategy is the "mode, style, or practice" teachers use to impart learning to students. As Sarobe (2018:58) states that it is "*methods used to help students learn the desired course contents and be able to develop achievable goals in the future*". Some challenges that students experience are the disparity between their preferred learning styles and actual modes of delivery (Felder & Silverman, 1988:674; Murphy et al., 2004:859; Othman & Amiruddin, 2010:655; Mlambo, 2011; Cilliers, 2017:196). Thus, teaching strategies are practices that a teachers/lecturers use to adapt to the way their learners learn in a way that creates a connection between themselves and learners (Laurillard, 2012:3).

There is an assumption that if the teaching style employed closely matches students' preferred style of acquiring knowledge, learning becomes easier, interesting and more natural (Cilliers, 2017:196). One school of thought believes traditional teaching materials and strategies generally tend to benefit some students more than others. As such, it is necessary to deploy resources to support the learning process in a way that it not only suits the characteristics of a few (Cekiso et al., 2015:242), but adapts to the characteristics of each student (Dervan et al.,

2006:803). This view is disputed by Cordero and Gil-izquierdo (2018:1314), who state that these assumptions have not been conclusively proved, thus increasing the need for further enquiry. Further, a study by Bosman and Schulze (2018) investigating preferred learning styles for Mathematics among secondary school learners in South Africa indicated students might prefer certain learning styles based on subject matter, suggesting that students might not be inclined to only one preferred learning style.

Laurillard (2012:3) states that to be able to adapt, teachers/lecturers need to be familiar with certain learning styles and adapt their teaching practices. Consequently, this section investigates the six teaching strategies:

- The first teaching strategy, *acquisition,* is a typical learning form where teachers/lecturers require pupils/students to learn certain content within specific periods.
- The second strategy is *inquiry,* where teachers/lecturers allow the process of discovery (self-learning) to take place. In this format, an idea or concept is provided for the pupil/student who is, in turn, expected to go on a journey of discovery to understand the concept.
- The third strategy is *practice,* which allows pupils/students to apply learned knowledge.
- The fourth strategy is *discussion,* which fosters inclusive learning as it is conducted in group-learning situations.
- *Collaboration* is the fifth strategy, where pupils/students socialise to create content that is part of their learning journey. This practice is mostly applied in a group assignment.
- The sixth strategy, *production,* is the development of learned theory into practice (develop and event). Best practices will be adopted to accommodate varied learning styles in appropriate situations (Peacock, 2001:2).

Although these are universally understood and applied practices used to improve student engagement and improve learning, there is an argument that their effectiveness might also be based on certain geographical settings where certain teaching styles only work in certain contexts based on culture (Cordero & Gil-izquierdo, 2018:1316).

2.3.4.1 Shifts in teaching practices

Generation Z entrants, who are defined as the generation currently in school and university, (born between 1995 and 2005) (Rothman, 2016; Brannan, 2019) are the most affected by educational transformation process in an effort to improve learning experiences (Rickes, 2016:21; Schweiger & Lawig, 2018:45-47).

The push for migration from traditional face-to-face teaching to e-learning in higher education, or a blend of the two systems, is a critical consideration as it has had much academic attention on the requirements of Generation Z persons (Zaluchu, 2020:7). This means the move from purely changing learning practices is not only about adjusting face-to-face teaching, but the integration of an online environment (Mthethwa & Luthuli, 2021:93). Within the South African context, this drive is motivated by several factors, including a major challenge to access to higher education, limited by the availability of learning institutions (Gumede, 2021).

Technology integration in education has come a long way in terms of developments (Keengwe & Onchwari, 2011:11), impacts thereof in the learning environment (McPherson & Jameson, 2011:16-18) and applications (Saichaie, 2020:99-100; Zaluchu, 2020:7). Most importantly, it is now shaping how we teach and learn in the classroom based on the expectations of Generation Z students in a classroom that offers opportunities, offers connections with peers, fosters their creativity, and prepares them for the work environment (Rickes, 2016:30; Schweiger & Lawig, 2018:4-47). The impact of technological innovations and uses in education advances these opportunities, taking into consideration that this also has a major impact on how students learn. Major elements of how teaching online platforms are used as a source to reinforce learning are well incorporated in the SLT. A practical example of the application of technology in teaching includes case study videos or simulation videos that students can watch and learn from (Deaton, 2015:2). These shifts in teaching practices are discussed in the following sections.

2.3.4.2 Blended/hybrid classrooms

The concept of a blended/hybrid learning classrooms is continuously gravitating from the pedagogical practice of teaching and learning using different teaching and learning methods to improving the learning experience (Goorha & Mohan, 2009:145; Hrastinski, 2019:568) as. teachers continually struggling to navigate from traditional pedagogical practices to the inclusion of technology in teaching and learning (Mkonto, 2015:212; Aheto & Cronje, 2018:106). The concept of blended/hybrid classrooms is varied amongst studies and definitions as well as the impact of the environment students learn in.

2.3.4.2.1 The perfect marriage of blended and hybrid classes

Universities operate with the majority view of blended/hybrid learning being the move from "traditional or face-to-face or in-person" tuition, towards "online or technology-enabled teaching" without fully considering the type of mode being used to blend learning activities (Cleveland-Innes & Wilton, 2018:11). It is critical to understand the differences between the

blended and hybrid models as these terms are used interchangeably in educational research (Graham, 2013:334).

Blended learning is considered as the model that proposes activities that introduce the use of technology. Models include activities that combine face-to-face instruction and technology-mediated instruction (Saichaie, 2020:96) with other blends inverting learning activities, where students can individually participate, such as watching videos, reading sources, and learning from second-hand experiences (Kurt, 2020; Saichaie, 2020:97) and, in turn, bring their experiences to the classroom to reflect on (Herreid & Schiller, 2013:63).

The hybrid model is described as the complete change of the face-to-face learning environment to purely online learning. Where blended learning indicates the augmenting of face-to-face tuition with technology, hybrid-learning leads to the reduction of face-to-face tuition and student activities to purely online activities (Saichaie, 2020:97). This simply implies that learning could migrate from a teacher/lecturer focus to a more student focus, or self-reliant basis where, according to Wiemer (2015:10), students produce a product, perform a skill, or demonstrate their knowledge, in the process of learning. Within the South African context, the general student finds it difficult to learn content from personal experience, but learns easily by observing others (Kurt, 2020). Thus, a broader understanding of the types of blended/hybrid learning models that exist and which scenarios warrant those blends, is critical for academics. Cleveland-Innes & Wilton (2018:15) identifies blended learning as a migration from traditional face-to-face learning, which is a view that supports earlier definitions, like that suggested by Watson (2008:5) who identifies blended learning as a "continuum between pure face-to-face and fully online settings".

In evaluating success of blended/hybrid models for consideration, institutions are guided by circumstances that could necessitate implementation, available resources and suitability of blended/hybrid models to implement. For the benefit of this study, the blended/hybrid classroom model considered, as a standard, is one that allows students flexibility to learn in both home and university environments. This model is a blend of classroom tuition with added online learning activities either in the classroom or online activities outside the classroom.

2.3.4.2.2 Approaches to blended/hybrid learning in tourism classes

Descriptions that seem to indicate factors that drive the identification of a particular model are the level of the need for integration of technology in the learning activity (Watson, 2008:5-6; Hrastinski, 2019:562). There are seven blended learning structures in higher education with different approaches:

- Blended face-to-face class – mostly on the continuum of the physical class where activities in classroom move from class instruction to group activities, individual tutoring, or paper based-self assessments.

- Blended online class – online class setting that mixes tuition time with students' individual or group activities to enhance learning activities.

- Flipped classroom – learning activities are inverted. Students learn concepts out of the classroom, using online platforms, and return to the classroom, to reflect on their learnt experiences

- Rotational method – fixed or discretionary movement of learning activities between class instruction and other activities, such as group work or online activities. The rotation is initiated at the teacher's or lecturer's instruction. The rotation may occur in four different formats: firstly, a rotation from one station to the next in the same classroom; secondly, laboratory rotation; thirdly, the flipped classroom and, fourthly, individual rotation. Thee definitions lend themselves to other formats of the blended learning, as described here (Cleveland-Innes & Wilton, 2018:16).

- Self-blend model – a model where students choose classes to attend online, and which classes they prefer to attend face-to-face.

- Blended Mooc – this means 'Massive Open Online Courses'. These are like an online course that is activity and video based. The blend is implemented where face-to-face activities and teaching are integrated with the online course.

- Flexible course mode – learning is flexible, meaning students can complete learning at their own pace. Tuition and learning activities are mainly offered online, with individualised face-to-face support, from a teacher/lecturer or mentor.

The blends will provide a breakdown of modalities that operate within the confines of a physical classroom, those that take place on online platforms only, and those that use the best elements of both environments, as depicted in Figure 2.2.
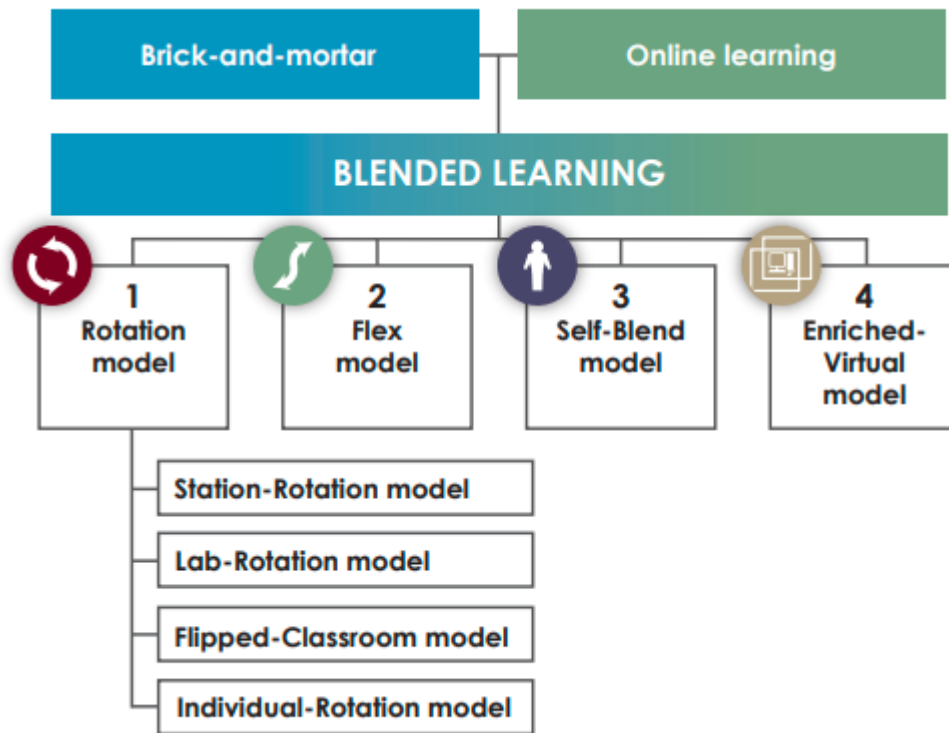
Figure 2.2: The blended learning taxonomy

Source: Staker and Horn (2012:3)

Staker and Horn (2012:3) and Hrastinski (2019:565-567) identify with the continuums of blended/hybrid learning models, as depicted in Figure 2.2, that range from the physical setting, where there is no or limited integration of technology, to the other continuum, where blends are completely online, with no face-to-face interaction.

- The first blend takes place in the physical environment where a blend starts with class tuition and students, time is then provided within the class environment for group activities, like *station-rotation*, to more individualised activities like *lab-rotation or individual-rotation*, which may include pencil tests. The *flipped classroom* involves an activity the student needs to investigate, which is then resented in the class environment for class tuition. Hence the term "flip", where activities start with the student and end with class tuition, unlike the other activities which start with class tuition.

- The second continuum, Flex model, is where students rotate from face-to-face tuition and supplement learning with online activities outside of the classroom environment. The activities, just as in the first continuum, are directed by the teacher/academic.

- The third continuum seems to suggest that students determine which courses they want to attend online and which they want to attend face-to-face. The blend is,

therefore, determined by the student. This scenario would also work where the institution offers both options of face-to-face and online teaching for all courses.

- The fourth continuum exhibits activities where a blend of class tuition and students' self-activity are all online.

Graham et al. (2014:23), in their book illustrating a process of theorising frameworks for blended/hybrid learning, indicates the mentioned categories presented by Staker and Horn (2012:3) are being used more in school settings. The authors present the following categories represented by Twigg (2003:30) as the ones used in the higher education setting:

- Supplemental: which explains activities mainly falling within the first continuum presented, the difference being that students are allowed some flexibility to move some activities to the home setting.

- Replacement: defined as replacement of face-to-face teaching with more online activities. When compared to the model just described, this process is similar to the second continuum.

- Emporium: the model where learning is purely online, with all tuition and activities being online. In this model, students have the option for on-demand personal assistance. This can be compared to the fourth continuum, with all activities online, and

- Buffet: equated to the third continuum presented earlier, where students have an option to choose learning activities suitable for them, based on available options.

Pre-2020 studies on blended learning that have been evaluated, although they reported on practice and student satisfaction and preferences (Tseng & Walsh, 2016:12), and successes of blended/hybrid learning implemented for courses (Harahap et al., 2019:525), did not use Twigg's four categories or continuums as defined (Alammary et al., 2014:442-443). Implementation is more a requirement of faculties, rather than a novelty, and research focus shifts to assessing students' preferences of blended/hybrid models used in courses and support mechanisms offered by universities for blended learning (Swartz et al., 2018:51; Tekane et al., 2020:25).

The influence of technological advances continues to have an impact on the way teaching is conducted and how blended/hybrid learning is achieved in all learning environments. The concept blended learning/hybrid class is a continuous academic discourse (Celestino & Yamamoto, 2020:2) on how it is evolving, and whether chosen methods reap desired academic results. A study of students' preference for blended learning indicates varied preferences for the various type of continuums presented with lesser preference for purely online learning (Aheto & Cronje, 2018:106). This, however, was a study conducted before the Covid-19

pandemic impacted on education globally. As a result of the spread of the pandemic, and lockdowns implemented, education was pushed, in many instances, to the last continuum where purely online tuition was the only option. Section 2.4 discusses the impacts of Covid-19 on education.

Cambridge University in the United Kingdom, in September 2021, developed an informative video providing undergraduate students with defining three options of blended/hybrid learning, as it focused on continuing learning programmes (Cambridge University, 2021). The information video included defining options, such as face-to-face lectures, online lectures, and/or a combination of the two options where the student could decide (Cambridge University, 2021). This adds to the premise that, in considering learning preferences of students in the design of blended/hybrid programmes, it is critical for HE institutions to ensure success of academic programmes.

Hapuarachchi (2017:258) identifies the objectives of blended learning as widening access to educational opportunities, enhancing the quality of learning, and reducing the cost of higher education. Although these assumptions can be argued, the author goes on to indicate that the objectives do not directly translate to preferences of these models by students, which then creates a gap between intended benefits and user experiences. Saichaie (2020:98-99) observes that there may be differences between different populations in their preferences for the various models. As a result of the debates in this section, studies going forward need to focus on student preferences of the blended/hybrid continuum for learning.

2.3.4.2.3 Support strategies for blended/hybrid learning

It must be understood that since blended/hybrid learning models cannot be successful on their own, these strategies must be linked to support mechanisms aimed at ensuring access, orientation and support for university students in order to respond to students' needs (Tseng & Walsh, 2016:11; Tan, 2017:157; Ogbuanya & Efuwape, 2018:S8; Swartz et al., 2018:51; Naidoo & Cartwright, 2020:12). A study of comprehensive university students in South Africa by Netanda et al. (2019:403-405) ranked forms of preferred university support by students, with the top three forms being directed to financial, academic, and emotional support.

*Financial support: mechanisms available to students at HE in South Africa vary from tuition allocations to requirements for food, accommodation, transport (Pillay, 2010:171; Tjønneland, 2017:3), and, since the biggest uptake of online learning, network access for online learning (DHET,SA, 2020b:8, 36-38,48-49). Dealing with financially disabled students gaining access to UOTs who do not have the required funds to access a university has become prevalent.

Although not sufficiently planned for, when free education was announced by the then president of South Africa, Jacob Zuma (Moolman & Jacobs, 2014:25-27), the step initiated further (and drastic) planning for financial vehicles that would provide support with student loans and bursaries, which provide full cover, or a portion of the academic fees, for academically deserving students.

*Academic support: this may include assistance for first-time university entrants with orientation on navigating online systems used for learning and assessments (King & Arnold, 2012:45). Academic support is viewed as a tool that benefits learner engagement and meets individual learners' needs, while it takes into consideration learning styles, that is, students' interests, prior knowledge, cognitive levels, socialisation needs, and comfort zones of students. Other mechanisms include the use of tutors, mentors, and peers – online support (DHET, SA, 2020b:50). Students' feedback is also considered as a form of support that involves a critical learning process that allows students' interaction with projects and assessments, drawing attention to the need for increased social interaction as the answer to ensure students' success.

- Emotional/mental wellness support: another critical factor for HE success is ensuring support for students' mental health. This issue cannot be divorced from academic issues as there is uncertainty for many students about expectations of university life, which, in certain cases, creates anxiety amongst students (Chipchase et al., 2017:31; DHET, SA, 2020b:48-49). Social connections developed for academic support, such as tutors and mentors, have been found to be beneficial support mechanisms for students (Warwick et al., 2008:8). Negative triggers for mental or emotional well-being of students in HE are usually mostly attributed to a lack of finances or financial backing, trouble with transition into university life and academic performance (Brewer et al., 2019:1108).

Evolving adaptations in teaching and learning practices in HE require considerations for adaptation of/or alignment with practice, application, and support mechanisms to ensure fit-for-purpose (DHET, SA, 2020b:48), especially considering hybrid/blended learning, as a permanent feature in South African education. Focus should also not only be on considering challenges, but potential benefits of hybrid/blended learning for the development of 21st century skills required in education and the workplace as technological advances continue to play a role as factors affecting students' learning (Carrim, 2022:4; Ocholla & Ocholla, 2020:365).

2.3.4.3 Technology adaption in education and working with 21st century skills in learning

Curricula innovations, which introduced multi-modal teaching and learning or flipped classroom learning, was first borne from the concept of adapting teaching practices to various student learning styles within a physical classroom setting (Barton & Ryan, 2014:410). Over the decade this migrated to the adoption of technology in teaching in a drive towards the agenda of keeping students interested and engaged in their learning (Gilakjani et al., 2013:1362) and to leverage students' learning for the 21st century (Laohajaratsang, 2017:138). Since 2020, there has been a need for higher education departments and government to salvage the academic agenda (Council on Higher Education, 2020:6-9). The latter was because of stringent measures put in place that called for social distancing during the 2020 COVID-19 pandemic that saw academic programmes around the globe grind to a halt, but operations and institutions implementing online learning to continue the academic programme (*WHO, 2020). These factors rendered hybrid/blended learning a critical consideration for HE curriculum development. As pointed out by Coetzee et al. (2021:2) "although the 4IR, in and by itself, is a driving force behind the disruption facing universities, the rate at which it is set to occur has been expedited due to the Covid-19 pandemic". This topic is elaborated in Section 2.5.

On a broader discussion, West (2013:6-7) avers that technology has enabled students the ability to access education beyond the confines of the classroom and fixed time-tabled periods of a school/university day. Since the introduction of technology, education has evolved from the basis of provision of information and communication technology in education (ICT) (Moursund, 2005:7). Moursund (2005:7) outlines the uses of ICT in education as curriculum content, as a tool in assisting with improving quality of teaching and learning, as well as an assessment and accountability system, and the basis of platforms critical to advancing teaching and learning. Added to these uses, Wills and Alexander (2000:56-58) indicate that universities started to introduce technology in education more as an option to increase productivity, improve attitudes of students towards learning, and to help lecturers in the monitoring and evaluation processes.

The global move towards technological improvement has governments and industries, including the education fraternity, moving to improve integration of day-to-day business operations to online platforms. For institutions of higher learning, integration means including more technology in the teaching and learning process (Ogbuanya & Efuwape, 2018:S2). This could be viewed as a move by higher education to shift curricula to align with developments in the 4IR (Fourth Industrial Revolution) as industries are evolving to the developments and impacts of technological advancements (Coetzee et al., 2021:2). University systems have long been geared towards producing students who are ready for the world's challenges, and

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technological advancements in the education system could be viewed as components to building graduate attributes for the 4IR industry (Sackey et al., 2017:123) and not only as tools that offer access.

Costa et al. (2019:395), in a paper assessing research around the use of technology in education, state that "*what the user does with technology is not solely determined by the design of the tool, or the properties of the tool, but is mediated by socio-cultural contexts, ones which shape tool use in certain directions*" (Costa et al., 2019:395). Mobile devices allow students to connect, communicate, collaborate, and co-create more, with access to rich digital resources online (West, 2013:13-14). Within the South African context, cellular or mobile phones have played a major role in advancing education. This ability is positively viewed as improving critical, high-order skills required by the tourism industry (Wakelin-Theron et al., 2019:8-10; Donina & Lapina, 2020:50-51).

Taking into consideration that a more holistic view of factors impacting on students' learning preferences (Bosman & Schulze, 2018:1-2; Matsolo, 2018:65) is critical, instructional design is a major factor in the experience of learning by students. Disruptions to the academic agenda, such as the 2015 to 2017 "Fees-must-fall" movement (student movement for free higher education in South Africa) and migration to online learning due to Covid-19 lockdowns, saw an increase in teaching and learning activities migrating to online systems (Hedding et al., 2020:2-3). What became evident during these periods was that, although there were challenges faced, the assumptions that millennials were open to new forms of thinking and would easily adapt to online learning platform (Cilliers, 2017:189-190; Hedding et al., 2020:3) is a notion that must be approached with caution DHET, SA, 2020b:48-49).

2.3.4.4 Twenty first century skills essential in learning

The definition of 21st century skills has gone through a general understanding that 21st century skills are those required for graduates to succeed in the workplace. These are mostly considered as skills to be taught in the education system. The applied education system provides a clear breakdown of skills under three main categories, namely: learning skills (critical thinking, creativity, collaboration, communication), literacy skills (information, media, technology literacy), and life skills (flexibility, leadership, initiative, productivity, social skill) (Beldarrain, 2006:147; Dlamini et al., 2021:41).

The framework that was introduced and presented by the National Education Association, in 2012, focused on learning which was classified as the 4Cs of 21st century learning (collaboration, communication, critical thinking, creativity) (Germaine et al., 2016:19). Ocholla and Ocholla (2020:359) identified the ten requisite skills to adapt requirements for new learning

techniques: complex problem-solving, critical thinking, creativity/innovating, people management, service orientation, negations, and cognitive flexible leading, which are critical work-place soft skills, and key foundations directing to heightened social behaviour. As the evolution of blended/hybrid models became more prevalent in HE, the 4C skills that were critical for success in higher education and the developments of ICT in education, necessitated the inclusion of technical ability to operate digital devices properly, to also be able to achieve organisational goals, once in the world-of-work (Reddy et al., 2020:69). This saw the prevalence of the term "digital literacy skills" (Eshet, 2012:268), also taking form in defining critical 21st century skills.

Following the debates in this chapter, tourism programmes have the challenge of adapting or implementing hybrid/blended learning in academic programmes that respond to industry requirements of 4IR-ready graduates that, most importantly, respond to the critical requirements of the tourism industry (Balula et al., 2019:69; Çınar, 2020:2421; Kallou & Kikilia, 2021:40) with critical support mechanisms (Ocholla & Ocholla, 2020:359). In this endeavour, to ensure student success, it is critical to ascertain if students are able to adapt to future, HE programmes that require 21st century skills for success.

2.4 Impact of Covid-19 on higher education

In December 2019, the world was advised of a cluster of pneumonia cases that had broken out in China, with the first case identified as Covid-19 by the World Health Organisation (WHO, 2020a). The infection spread rapidly across Asia, Europe, and the United States, with the first African case reported in Egypt on February 14, 2020. As the cases developed in South Africa, the government declared a national State of Disaster. The instructions implemented certain strategies on how the country was going to manage the pandemic. The strategies included wearing of facemasks to cover the mouth and nose, regular washing of hands, and staying at home. The most stringent strategies were isolation and social distancing. The strategies focused on slowing and containing the spread of the virus. On March 15, 2020, President Cyril Ramaphosa announced a National State of Disaster, which saw the first lockdown of the country, and many countries across the world (Staunton et al., 2020:2-3).

The lockdowns restricted movement and assembly, which meant learning, at all levels, abruptly stopped. All education-related activities and all industries were pushed into isolation; to be able to function, they had to re-invent themselves. The Covid-19 pandemic fast-tracked steady strides made towards deployment of technology in learning at a time when it was more face-to-face orientated to purely online or remote learning. This, in many instances, created challenges for students and staff regarding implementation and access issues (Mhlanga, 2021:16-18) because the push was abrupt due to the impact of the pandemic guided by

regulations in the Government Gazette No. 43148 of 25 March 2020 (Disaster Management Act, 2002, 2020; The Guardian, 2020).

Section 2.3.3.2.1 of this study explained models of blended/hybrid learning to illustrate the drastic moves institutions needed to make in shifting teaching and learning from the one dominant pedagogic face-to-face position to the next in a very short time (Varady, 2021). The benefit of this move was the fact that the world was generally ready for remote learning in the context of a disaster, so education could continue in the event of further out-breaks, or disasters. The negative aspect was that the divide in technology readiness meant that countries that did not have the required infrastructure continued to be left behind and students and learners around the world who did not have access to technology lost out on valuable education for months and, in certain instances, for years (Mpungose, 2020:5-6). Within the South African landscape, challenges still existed (in 2020) to learning where facilities or learning was a challenge (Naidoo & Cartwright, 2020:12).

Surprisingly for the researcher, evidence of positive outcomes is also seen in the performance and development of students. Education Analyst, Dr Corrin Varady, in an interview with the SABC programme, Morning Live, on 23 February 2021, alluded to unexpected academic performance from 2020. In the interview, the phenomenon of a higher-than-expected pass rate of the 202 matriculation class, after a disruptive academic year, could be evidence that new models of learning are emerging that are not yet understood (Varady, 2021). Considering that the academic programme of 2020 was heavily impacted by the Covid-19 pandemic lockdowns and learners had to rely more on themselves, the concept of positive academic outcomes during pandemic lockdowns is a sentiment elaborated by Twesige et al. (2021:152). During this time, students exhibited improvement, or easily adapted to applying 21st century skills in the mode of online learning and collaboration in completion of required tasks.

After facing the hardships of the impact of the pandemic lockdowns and forced remote learning, HE institutions had to take stock and critically evaluate not only resources as a tool for improving academic performance, but also investigate what impact learning preferences have on students' academic performance (DHET, SA, 2020b; Ligami, 2022; Mail & Guardian, 2022).

As the world struggles to "return to normal", there is now a shift in thinking to looking at a "new normal" with how systems will function going forward. Building blocks of research on learned experiences needs to be built into planning to ensure the gap between intended outcomes and lived experiences of students in higher education is limited.

2.5 Summary

The development of a conceptual framework for this study considered relevant theories, concepts and principles. The researcher's ideas, suppositions, and observation regarding the study question (Maxwell, 2013:43-45; Johnson et al., 2020:140) was critical in the process of identifying the most critical elements impacting student's learning, and considerations that need to be put in place to respond to students' requirements for their learning.

The HE landscape was on track to adjust to the benefit of the new millennials, but the impact of Covid-19 has real implications of considerations that need to be put in place in designing of tourism academic programmes. Factors for consideration are students' backgrounds and their learning environment that affect how they learn. Students' feedback is also crucial in drawing lessons from reflective experiences of face-to-face as well as online teaching/learning modalities, and benefits and challenges thereof. Studies of university students by Mkonto (2015:212) and Semley et al. (2016:45) indicate the importance of students' feedback in curriculum matters.

Chapter 3 provides insight into learning theories considered central to conducting this study.

CHAPTER 3

LITERATURE REVIEW: APPROACHES TO LEARNING STYLES IN HIGHER EDUCATION

3.1 Introduction

A conceptual framework of the study was presented in Chapter 2. A literature review relating to issues affecting teaching and learning was presented. In this Chapter, relevant theories to three critical aspects of the study relating to learning styles, hybrid/blended learning, and issues of social justice in HE are reviewed. The theoretical framework attempts to explain relationships within the study (Crawford, 2019:38). The chapter begins with a synopsis of outcomes from reviewed studies on students' learning preferences.

As critical as the conceptual framework is to provide a base for this study (Berman & Smyth, 2015:127), so is the theoretical framework in guiding the building blocks of the research (Adom et al., 2018:438). The theoretical framework provides structure to this study. It offers some background to the researcher's philosophy, and epistemological and methodological processes, thus assisting in contextualising theories into the researcher's enquiry (Grant & Osanloo, 2014:19). Adom et al. (2018:434) advise that in developing a study's theoretical framework, the researcher needs to understand the research purpose, research problem, and research questions.

3.2 Definition of students' learning styles

Academics who conduct research on learning preferences share the view that learning styles could have an impact on the academic performance of learners (Pritchard, 2009:22) as well as enrich the learning environment (Alkhasawneh, 2013:1548). To improve learning at a university level, learning has been moved to be more learner-centred (Mpungose, 2020:934-935) with suitable blended learning models (Graham, 2013:334). Over the past decades, research has reiterated that individual students learn differently (Mkonto, 2015; Hapuarachchi, 2017; Sarobe, 2018; Denessen et al., 2020) and that most teaching occurs in a chronological and systematic way. Unfortunately, most students at HE level do not learn in this way. As research around the concept of education customisation continues in terms of driving teaching and learning to be more learner-centred (Beldarrain, 2006:139; Sarobe, 2018:78), similarly is the increasing argument that there should be a distinction made between known teaching styles and how learners absorb information, echoed by Kaliská (2014:1):

> If a teacher understands students' preferred learning style, he/she can manage his/her teaching technique to increase the educational process efficacy and to increase the potential of students' better achievement.

Customisation of education, in many contexts around the world, places much focus on curriculum design (Jugnohan, 2010; Dewey, 2011). Customisation of education, as certain authors depict, is linked to methods of teaching (Paredes & Rodriguez, 2006; El-Bishouty et al., 2019; Coetzee et al., 2021). A study by Perkins (2004:17) suggests that all efforts in improving practices of teaching and learning are based upon achieving basic goals to education. Moursund (2005) concurs and notes these basic goals as:

- "Acquisition and retention of knowledge and skills".
- "Understanding of one's acquired knowledge and skills", and
- "Active use of one's acquired knowledge and skills (transfer of learning, ability to apply one's learning to new settings, and the ability to analyse and solve novel problems)" (Moursund, 2005:7).

The best way to achieve these educational goals is when students understand which processes assists them to improve information processing, and lecturers adjust teaching accordingly (Ilçin et al., 2018:5). The authors further assert that self-awareness of learning styles improves learning experience. Students' learning styles or profiles indicate the learning preferences of the individual, as well as pinpoint the possible strengths and tendencies that are likely to yield success or difficulties in academic settings (Lynch & Baker, 2005:5; Kafadar & Tay, 2014:260).

3.2.1 Review of literature on students' learning preferences

The volume of literature available on the topics focusing on learning styles is overwhelming, with various studies focusing on different streams linked to student learning styles. The first literature review on students' learning preferences was depicted in Table 1.1, Chapter 1. The literature summary table presented data focused on students' learning preferences, where the search was conducted on Google Scholar, with the key words: "student learning preferences". This search resulted in a multitude of studies with a focus on student learning style preferences (Zacharis, 2011; Cuevas & Dawson, 2017) and preferences around issues of blended learning models (Page et al., 2017; Elmaadaway, 2018; Le Roux & Nagel, 2018); factors impacting course choices (Jose et al., 2019) and perceptions of the importance of 21st century skills (Landon, 2019).

Other results related to the use of technology (Graf et al., 2006:235; Smith-Labrash, 2010:7-9; Tan, 2017:155) and teaching practice causal studies (Lesiko-Sedumo, 2010:110-117). It, thus, became apparent that a clear delineation would be necessary to focus the study on the research aim (Randolph, 2009:6) and to explore learning preferences of Tourism Management

students at selected UoTs in South Africa. To understand and have a clear view of students' preferences, a further review of literature on the factors impacting students' learning preferences and learning was conducted using the keywords "factors that impact student learning preferences" and a question "what factors impact student learning preferences?". Results of this search are presented in Table 3.1. The search was undertaken by using the keyword phrases in journal databases: Scopus, Science Direct, ERIC and Google Scholar. This search yielded the results presented in Table 3.1, indicating a focus-review of factors considered to have an influence on students' learning preferences.

From the review, issues identified were gender or age (Mlambo, 2011), blended/hybrid model preference (Clayton et al., 2018; Saidi et al., 2021) lecturer teaching styles (Akbarzadeh & Fatemipour, 2014; Dickinson et al., 2021), and student learning styles (Kim et al., 2018; Viola et al., 2020). A further evaluation of the studies indicated the importance of enquiring about students' learning styles in the design of studies that evaluate students' learning styles preferences. This observation prompted a review of the same papers to establish students' learning theories and indicate tools that were used in determining students' learning styles in the identified studies, as well as in the literature and methodology design of this study.

Table 3.1: Findings summary, research focused on student learning preferences

Reference	Study aim	Sample	Methodology	Results	Location
Mlambo, 2011	Relationship between age gender and entry requirements	66 first years in Biochemistry	Exploratory survey & VARK instrument	No correlation between age, gender on learning preferences	West Indies
Dickinson et al., 2021	Impact of teacher learning styles of own practice compared to student learning styles	29 medical residents	Fleming VARK learning style inventory to assess student learning styles and Staffordshire Evaluation to assess teaching styles	Teaching styles can impact effective teaching	USA
Saidi et al., 2021	Evaluate student preferences of online platforms for teaching, for their convenience to online learning	485 HE students from various fields and locations. Through a network of academics	Online survey of 13 questions on preferred learning and communication tools during remote learning	Preference to LMS for learning	Malasia
Volira, et al., 2019	Evaluating preference of learning style per academic field	1840 college students in different fields	Mixed method. Survey (The Honey-Alonso Questionnaire)	Reflector style more dominant, irrespective of field of study. Also, differences based on gender. Females more pragmatist learners.	India
Clayton et al., 2018	Comparison of preferences for	464 university students and graduates	Open-ended questionnaire – online	Although there is exposure to online offering, students still prefer traditional learning	USA

	traditional/hybrid or online class delivery			environment for major subjects and hybrid or online learning for other subjects.	
Akbarzadeh & Fateripoura, 2014	Mismatch between student learning style and teaching styles	183 questionnaire and 46 interviews	Mixed method - Learning style preference questionnaire plus interview plus observations and teaching style questionnaire	Preference for active learning styles. Teachers must be aware of student learning styles and their own teaching styles to can adjust teaching practices.	Iran
Kim, et al., 2018		132 medical residents from 5 different institutions	Survey – VARK inventory	High result return for multi-modal and kinaesthetic learning styles	USA

Source: Researcher's construct

Pritchard (2017:3) defines learning theories as guiding principles for the design of teaching and analysis of classroom learning, and proceeds to indicate that theories provide a scientific basis for applied practices in the classroom. In the studies summarised in Table 3.1, inventories adopted from various learning theories were adopted to assess what learning preferences the study participants had in order to determine what factors impact students' learning preferences. The VARK inventory was the most used tool in three of the reviewed papers, the Honey-Alonso Questionnaire was used by one study and the remaining three studies applied own design or did not indicate adoption of learning theories in assessing students' learning styles in their studies.

3.2.2 Review of literature on learning models used in student learning preference research

For this particular study, learning style methods or inventories that were identified for consideration in designing research tools included the VARK model – (visual/auditory/kinaesthetic), the Kolb Model – (assesses achievement against environments), and the Felder-Silverman model (Graf, 2007:79) – (active/reflective, visual or verbal, intuitive/sequential) (Ng et al., 2008:2; Smith-Labrash, 2010:10; El-Bishouty et al., 2019:2). In reflecting on the suitability of the various models, the Myers-Briggs model – (self-introspection) was also considered, but it has been criticised for not being well-suited for the educational setting as it is specifically applied in the business environment, so using personality types to measure learning styles is not recommended (Romanelli et al., 2009:2).
A review of studies (Cekiso et al., 2015; Mkonto, 2015; Saidi et al., 2021) that focused their enquiry on students' learning preferences was also conducted, where information was obtained based on sources that included the words "student learning preferences" in the titles. The search, conducted on the Google Scholar search engine, delineated the study to

papers/articles that focused on higher education studies, where the enquiry was not only focused on causal analysis of one subject, but assessed preferences in a programme, or across programmes. This yielded seven papers that were considered for review of students' learning preferences, listed in Table 3.2.

Interesting data that came out of the analysis indicated a dominance of quantitative research methods, with studies conducted within one or multiple universities, although one study by Saidi et al. (2021) in Malaysia worked with networks, implying that this type of study could have reviewed multiple institutions across multiple countries. However, results of the study by Saidi et al. (2021) did not formulate the study sample or results into learning styles, but highlighted a review of preferences to technology within studying, linking to technology students preferring to use as an assistive learning tool. Consideration of students' learning preferences is multi-faceted; and multiple factors that have a direct impact on students' learning preferences should be considered. Exclusions of this review included studies that did not indicate a clear assessment of learning style preferences as a dominant factor for the study, but only focused on reviewing preferential use of language or technology in the classroom.

Table 3.2: Review of studies focused on students' learning styles

Reference	Research Tool	Sample	Methodology	Results	Geographic context
Dobson, 2009	VARK Investigated learning preferences of and relationship between gender and academic performance	901 Applied Human Psychology undergraduates	Self-administered questionnaire	Visual/ sensory (45%) preference and least preferred learning style being kinaesthetic (5%)	1 University in the USA
Mkonto, 2015	Centre for Innovative Teaching Experiences (CITE) Instrument = Perceptual Learning Style Preference Questionnaire (PLSPQ) (Learning based on student perception of learning	130 faculty students from 7 Faculties	Survey and essay feedback	Results of various programmes indicated Health and Science dominant learning style = Kinaesthetic 63% and Engineering = 43% - Practical learning when touching and feeling objects. (cross-faculty study so some duplication evident)	1 UoT in SA
Alkhasawneh, 2013	VARK Investigated learning preferences of nursing students	Nursing College	Self-administered questionnaires	45% students had single learning preference (either kinaesthetic, read/ write, auditory, visual), with majority 55% indicating Multi-modal preferences with dominant learning style were kinaesthetic (45%),	1 University in Jordan

				second Read/write (40%), and auditory preference was recorded less.	
Saidi et al., 2021	Preference of online learning tools	None	Online surveys through networks linked to lecturers in private and public universities	WhatsApp most preferred form of chat platform followed by telegram and e-mail	Melaka in Malaysia
Maric et al., 2015	Honey and Mumford's Learning Style Questionnaire (LSQ) Measure learning styles (reflectors, theorists, activists, pragmatists)	1042 University students across three universities	Exploratory study Self-administered questionnaires	Instrument focused more on attitude towards learning – indicating pragmatist and reflective learners	3 universities in Slovania
Gogus & Ertek, 2016	Kolb's Learning Style Inventory	418 voluntary participants – university undergraduates	Exploratory Online survey	Four-region learning style indicates a dominance of converges (students who prefer to learning through practical application)	1 university in Istanbul
Cekiso et al., 2015	Kolb's Learning Style Inventory	232 business accounting studies undergraduate students	Exploratory - quantitative	Dominant learning styles for accounting students are converges followed by accommodators, across all levels of the undergraduate accounting course. Indicating students to rely on logical reasoning	2 UoTs in SA

Source: Researcher's construct

A study by Mkonto (2015:2019-220) at a South African UoT indicated interesting results. Engineering, Health and Science groups led, with students who preferred kinaesthetic (learning where students prefer hands-on application or real-life practical experiences) learning styles, as indicated by the VARK model or convergers, as identified by Kolb's model (AlKhasawneh, 2013; Cekiso et al., 2015; Gogus & Ertek, 2016). This implies their dominant learning style is practical, where objects can be felt and touched. This was also the result of a study indicating students at Slovenian universities being methodological and preferring the more practical element of learning, rather than a theoretical focus (Maric et al., 2015), which is an indication of the preference for self-directed learning activities. The study by Dobson (2009), conducted in the Unites States, provided contradictory results suggesting a preference for visual/sensory learning, with the kinaesthetic learning style being the least preferred. A question arises from these reviews as to whether the dominance of learning styles could be based on geographical settings, which could consider educational systems within certain countries preparing students for university, as an indicator. In Chapter 2 the discussion of preparedness of students for university was raised. The evidence of over-exposure of students from primary and secondary educations systems to rote environments creates a dichotomy when learners need to migrate from rote learning to abstract learning in HE (Slamat,

2009:43,122; Hlalele & Alexander, 2012:491; Mbuvha et al., 2021:1-3). This problem has been identified as a critical factor in preparing students for university life in South Africa, leading to ill-prepared students for HE, who face challenges with migration between these varied environments (Visser & van Zyl, 2016:330-331; Dlamini et al., 2021:124 ; Van Zyl, 2017:20).

The pursuit of academics to understand how students learn has yielded multiple theories, grouping students in specific groups with learning preferences. The following section provides an analysis of theories suitable for learning styles considered for this study.

3.3 Learning styles models reviewed

Learning preferences is "the way people want to interchange information, meaning an individual way to learn" (Deale, 2019:1) including the skills used in the VARK learning style of Fleming's (1992:3) kinaesthetic skills, that is, learning by doing, and learning by listening and seeing, implying auditory and visual learning skills as identified by Felder and Brent (2005:60). Bogue (2018:3) elaborates on sensory learning, memory, motor, problem-solving and emotional learning as critical forms of learning linked to the action of learning. Learning inventories used should also take into consideration students' behaviour related to learning, not only learning skills (Gogus & Ertek, 2016:780). In various learning environments, students may exhibit different learning styles and behaviour in order to learn. This could have a serious implication for academics in planning teaching and learning activities where learning environments change.

Work by Dunn and Dunn (1993) on learning styles was the first model to emphasise different learning styles through a diagnostic inventory (Allen et al., 2010:35; Landrum & McDuffie, 2010:11-12), the Productivity Environment Preference Survey (PEPS), established in 1975 (Hawk & Shah, 2007:9). Hawk and Shah (2007:10) and Allen et al. (2010:39) are of the view that the Dunn and Dunn model consists of dimensions of stimuli, which are used to assess motivation levels of learning, based on certain identified stimuli according to the inventory tool (Hawk & Shah, 2007:13). The style focused on how a student processes and starts to internalise and remember new subject content based on identified stimuli (Bosman & Schulze, 2018:2). The inventory tool consists of five stimuli, each with certain elements:

- *environmental* (sound, light, temperature, and room design).
- *emotional* (motivation, persistence, responsibility, and structure).
- *sociological* (learning alone, in pairs, with peers, with a teacher and mixed).
- *physiological* (perceptual intake while learning, chronological energy pattern and mobility needs), and
- *psychological processing* (impulsive or reflective, and global or analytic) (Dunn & Dunn, 1979:238-244; Hawk & Shah, 2007:12-14).

As the approach to the theory mostly focuses on activities within the classroom environment (Bosman & Schulze, 2018:2), it poses a limitation for this study as the learning environments being investigated are not only limited to the physical classroom, but the study also evaluates learning activities in multiple learning environments outside the classroom. Taking this criticism of the theory into consideration (Landrum & McDuffie, 2010:13), definitions from the model were considered, but the model was excluded from the final review of suitable theories for this study. Critical elements of this model are, however, covered in the Kolb, Felder-Silverman, and VARK models, which are explained in this chapter (Hawk & Shah, 2007:12-14).

Other theoretical considerations were the Bernice McCarthy system called the 4MAT system, originally developed in the 1980s (McCarthy, 1987). The model divides learning into four quadrants, in which teaching will move from one concept to the next concept, as learning progresses. The model is applied as a linear progression through each quadrant from the:

- Imaginative learner – these students learn best from peer interaction. The concept of group work, from curious questioning and listening, is popular with them.
- Analytical learner – learners that learn by watching and listening. These students expect the teacher/lecturer to be the primary information giver, more typically accepting of the traditional way of teaching/lecturing.
- Common sense learner – the students have the good sense to understand a concept by testing theories in the real word to apply what has been learned. They learn best when learning is combined with doing.
- Dynamic learner – this student enjoys action as part of the learning process-. The student excels in finding new directions or putting a personal stamp on work (LeFever, 2004:18-21).

Activities that Brame (2016:2) define as active learning are where students conduct experiments, participate in role-plays, or watch videos. Johnson and Johnson (2019:61) describe these activities as collaborative, highlighting peer interaction like group work or team-based learning. Other authors also describe learning activities in this learning system to be focused on problem-based learning (Cattaneo, 2017:144; Mumtaz & Latif, 2017:390-391). The Bernice McCarthy's system, also called the 4MAT system, was considered for this research, but not included in the final models for not being suitably applied in HE settings (Nicoll-Senft & Seider, 2010:21; Laiprasertporn & Camhongsa, 2020:234). This study used Kolb's SKL model, upon which the 4MAT system is based (McCarthy et al., 20021.4-1.7).

The review of learning theories made it clear theories critical for consideration in the design of this study were three. The first was Flemings' VARK model, which forms the basis of this enquiry in assessing students' learning preferences. Kolb's SKL model, the second, reviews

practical elements of learning activities, including assessments as a critical learning tool and, third, Felder-Silverman's model that takes concepts of online learning into consideration. The discussion that follows introduces and provides a background to each model, as well as implications for the study.

3.3.1 Fleming's VARK learning model

The VARK model (visual/auditory/read/write/kinaesthetic), developed by Niel Fleming, was introduced in 1987, as the VARK model and later modified in 2006 (Othman & Amiruddin, 2010:655). This learning style theory, according to Murphy et al. (2004:860), is concerned with how the brain processes and comprehends learning new information. This study followed the concept of the VARK model, where the purpose was not to determine learning styles in general, but to evaluate students' learning preferences. The model is considered the main basis for the learning preference surveys that were used for this study (Fleming & Mills, 1992:140; Robertson et al., 2011:37).

3.3.1.1 Background

According to the VARK model, learning preferences are based on students' preferred ways of learning, including watching (visual), listening (auditory), reading (reader/writer) and/or doing (kinaesthetic) (Fleming & Mills, 1992:140-141). Online Learning (n.d.) and AlKhasawneh (2013:1546-1547) identify the VARK model as one of the key methods of identifying students' sensory learning preferences, with the variations in the acronym, indicated in Table 3.3 being Visual, Auditory, Read/Write and Kinaesthetic.

Table 3.3: Flemings' VARK learning model

Learning style	Characteristics
Visual	Preference for using resources such as diagrams, pictures, and videos. See people/things in action.
Auditory	Need to talk about situations and ideas with a range of people, enjoy hearing stories from others
Reader/writer	Prolific, note-taker, textbooks are important, write down facts and stories
Kinaesthetic	Preference for hands-on experience within a "real" setting and for global learning.

Source: Adopted from Robertson et al. (2011:37)

3.3.1.2 Use in research

In research, the model (questionnaire) is adopted for investigation in a learning environment or classroom setting, but the study by Robertson et al. (2011:37) investigated learning preferences in a fieldwork environment. In his study, Dobson (2009:309) indicated that this model was mostly applied in modality preference studies in Psychology courses, with other studies indicating a preferred use in the medical field (Prithishkumar & Michael, 2014) (Kim et al., 2018), (AlKhasawneh, 2013). The model has also been successfully implemented in management sciences courses as well (Mlambo, 2011; Deale, 2019).

As the purpose of this study was to assess students' learning preferences, the basis of questions on student learning preferences was adapted to questions from this model. Understanding how student cohorts prefer to learn is critical in aligning teaching practices and designing instructional programmes (for the tourism programmes at UoTs). To indicate clear examples of what activities different students may prefer, Fleming (2001), and Hawk and Shah (2007:8) provide practical examples of teaching techniques that could show preference based on this learning style (Table 3.4). In determining studying for assessments, learning styles could also be based on how students learn, leading up to assessments, that is, whether they read directly from prescribed books, prefer to talk to other students, teachers or tutors, prefer to work from class notes or use projects and assignments as a source for learning. Using this framework as a guide in assessing research feedback on open-ended questions assisted in building an understanding of the learning preferences of participants for this study.

Table 3.4: Activities that accommodate VARK learning styles

Visual	Aural	Read/Write	Kinaesthetic
Diagrams	Debates, Arguments	Books, Texts	Real-Life Examples
Graphs	Discussions	Handouts	Examples
Colours	Conversations	Reading	Guest Lecturers
Charts	Audio Tapes	Written Feedback	Demonstrations
Written Texts	Video +Audio	Note Taking	Physical Activity
Different Fonts	Serminars	Essays	Constructing
Spacial Arrangements	Music	Multiple Choice	Role Play
Designs	Drama	Bibliographies	Working Models

Source: Adapted from Fleming (2001) in Hawk and Shah (2007:8)

3.3.2 Kolb model

The requirements of the services industry, including tourism, of students who are industry-ready is a major element that could influence the design of tourism programmes. The experiential learning built into the design of course(s) is one of the most critical elements of

learning from real-life experiences to produce well-prepared students. The model most applied to assessing the process of taking learning experiences and transforming them into knowledge is Kolb's model, associated with the Learning Style Inventory (LSI). In Kolb's summary of the use of the Kolb Learning Style Inventory (KLSI), the model has been used broadly in developed nations that have a strong experiential component in the learning manifesto of those nations (Kolb, 2014:xxiii-xxxv) as well as in learning programmes that have a strong experiential learning base (McCallum et al., 2013:4) and Deale (2019:5). The four dimensions of Kolb's learning process are:

1. Gathering concrete experience of a concept.
2. Reflecting on the concept and making observations.
3. Abstractly conceptualising the concept by drawing from observations, and
4. Applying a through process of experimentation (Kolb, 1984).

Liang (2021:2) highlights the four stages of learning as introduced by Boyatzis and Kolb (1995), that is, the experience stage, reflection stage, generalisation stage and application stage, as a process that effectively transforms experiences into knowledge. This process demonstrates the importance of role-play in business studies as a practical learning activity (Johnson & Johnson, 2019:61). Seger and Van der Haar (2011:57) state that from Kolb's learning process, different learning events and environments force the student to adopt various learning models to suit the scenario. These authors define students as being more dominant in one or more of the following learning styles:

- Divergers: prefer to learn a concept and then discuss it with peers.
- Assimilators: start by learning an abstract concept and implement or be assessed on it.
- Convergers: are students who can learn through self-discovery, and can learn without interventions from the lecturer, and
- Accommodators: prefer to start with a complex concept and then gather more information on the concept to be able to understand it further (Seger & Van der Haar, 2011:57).

Gogus and Ertek (2016:780), in their review of learning inventory use in research, identify Kolb's theory as one of the most used learning inventories to establish learning behaviour related to learning.

3.3.2.1 Background

Othman and Amiruddin (2010:654) classify four learning styles based on Kolb's work that are associated with different approaches to learning, namely: diverging, assimilating, converging, and accommodating (Kolb, 1984). Gogus and Ertek (2016:780) present Kolb's theory as

emanating from the foundational works of Jean Paiget, John Dewey and Kurt Lewin, defending that *"learning is a combination of experience, cognition, perception, and behaviour" (Kolb, 1984) and is further developed from the work of Hunt and Associates, who saw the four-learning style of Kolb expanded to nine (Kolb & Kolb, 2005a:197-199). The additional learning styles include a flow of learning from the original four styles. These as illustrated by Gogus and Ertek (2016:780) as follows:

- Northerner (feeling, acting, and reflecting).
- Easterner (reflecting, feeling, and thinking).
- Southerner (thinking, acting, and reflecting).
- Westerner (acting, feeling, and thinking), and
- Balancing (thinking, feeling, watching, and acting).

The model now indicates how learning becomes a cyclical process where style is adapted based on the different stages of the Kolb and Kolb (2005:207-209) model. For tourism qualifications, reflective learning creates a basis for meaning, and the making of abstract elements to be learnt (McIlveen et al., 2011:34; Aldabbus, 2018:73).

3.3.2.2 Use in research

Evidence found mainly from engineering qualifications (Williamson & Paulsen, 2018:8) suggests research adopts the inventory to investigate students' study-skills and learning habits (Gogus & Ertek, 2016:780). Based on the definitions of the Kolb model, the ability to learn from practical scenarios and teamwork could be applicable in other fields. In this research, the Kolb model (with variations) was adopted for assessing situations where students favourably react and feel that the system improved their learning journey. Reflection is one element of learning meant to produce meaningful learning and reflection linked to assessments and how students use assessments as a learning tool is critical. The model also assesses how students engage with assessment feedback to aid in learning as these are considered critical learning tools.

3.4.3 Felder-Silverman

This learning style was developed in 1987 by Richard Felder and Linda Silverman and later modified in 1988 (Felder, 1988:1-2) to the model widely used in current research. The model is used to classify students' learning preferences on the scale of how each student perceives, retains, processes and organises information (Da Silva et al., 2017). According to the model, the four classification dimensions are:

* Perception - which considers sensory and intuitive learners.
* Retention - which classifies visual and verbal learners.

*   Processing - which includes active and reflective learning, and

*   Organisation - which describes sequential and global learning skills (Da Silva et al., 2017:120-121).

This model, together with the Kolb's 1984 model, was considered the most suited to assess learning preferences in educational environments and whether the learning environment has an impact on how students learn. To evaluate if certain learning environments are preferred by students, perceptions of the home vs campus environment, as well as face-to-face vs online environment, are needed. The use of learning styles based on the environment was also evaluated (Kaliská, 2014:2).

3.4.3.1 Background

The model was developed with inferences from other models, including Kolb, by adopting the active/reflective dimensions, the sensing/intuitive dimensions from Jung's theory of psychological types, and the Myers-Briggs Type indicator (MBTI) (Felder, 1988:675-677) and is mostly linked to learning practices in relation to adaptations and the use of information technology in learning (Uzun et al., 2012:4126).

3.4.3.2 Use in research

The Felder-Silverman Index of learning styles has been used in multiple research studies in engineering and applied informatics (Wang & Mendori, 2015:1; Da Silva et al., 2017:121). Leka and Kika (2018) conducted a quantitative survey among students registered for an informatics course, which indicated that although there was a balanced approach towards all learning styles, most students presented a visual learning preference. The implementation of online learning design had also taken aspects of this model into consideration (Graf et al., 2006), where the model was used in the application of various learning styles, especially of online learning platforms (Da Silva et al., 2017:120-121).

From the Felder-Silverman study, adaptations of this model were based on assessing actions of tourism students' use of various learning platforms for learning to ascertain preference related to participation in blended/hybrid learning. The ability to assess the most effective model for students not only to prefer, but effectively use for learning is essential for further modification in tourism programmes for efficient educational experiences (Ilçin et al., 2018:2). Section 3.4 reviews theories that underpin blended/hybrid learning.

3.4 Blended learning approaches

Throughout events that have disturbed the HE academic programme, like staff or student unrests and the #feesmustfall protest 2015/2016/2017 (Moolman & Jacobs, 2014:18-19; Taylor & Shindler, 2016:18; Lange, 2017:35) and to the most impactful disruption, Covid-19, there is much introspection required of the sector (Council on Higher Education, 2020:4; Hedding et al., 2020:1). One of these considerations is the move for HE to consider hybrid/blended learning as "the new normal" in education.

With decades of reviewing issues of students' success and innovative ways of dealing with throughput challenges (Jansen, 2009:18; PMG, 2011:1), various approaches to learning have been investigated and implemented in the pursuit of improving teaching and learning. The models migrated from the implementation of flipped classrooms, which are based on changing or inverting traditional classroom activities, to having some learning activities taking place outside the classroom to blended learning, which has been the most accepted as an approach that combines face-to-face teaching with technology-mediated learning activities. Now the hybrid model, which was traditionally viewed as a distance learning teaching approach, has replaced face-to-face contact, shift learning and related activities to a virtual or online environment (Hapuarachchi, 2017:458; Saichaie, 2020:98). Before Covid-19, there was already a shift in HE globally to implement the blended-in approaches (Tseng & Walsh, 2016:7) and, as a result of the pandemic, learning completely shifted to a complete virtual format, which was a necessary alternative for the successful completion of academic programmes (Celestino & Yamamoto, 2020:5). This disruption was not without its myriad of challenges, with lessons learnt from the process, HE in South Africa focuses on blended/hybrid learning as a pedagogic design (ReadLab, 2022).

Definitions and forms of blended/hybrid learning were dealt with in Chapter 2, with the most influential definition by Graham (2013:3-5), which indicates that blended learning systems are built from a combination of face-to-face tuition and a further combination of computer-mediated instruction (Bryan & Volchenkova, 2016:25). Picciano et al. (2014:21) note that it is also a combination of instructional modalities, or combining instructional methods, which could allude to a blend of platforms and teaching models. In Chapter 2, these definitions are explicitly explained in Section 2.3.4.2, outlining the differences between different blended and hybrid learning modalities. In this section (3.5), theories that form the basis for the application of blended/hybrid systems for this study are explained.

The principles that guide blended/hybrid learning encompass earning gained through collaborative actions, where learners construct their own knowledge though interaction with

others (Lam, 2015:178; Bryan & Volchenkova, 2016:27). This definition lends itself to Lev Vygotsky's 1978 definition of the Proximal Zone of Development, that human connections formed through similar experiences create a community (Lesiko-Sedumo, 2010:112-113). The concept of "community plays a central role in the process of making meaning" (Bryan & Volchenkova, 2016:27) within learning environments (Dukhan, 2020:51). This, borrows from Vygovsky's social constructivist theory that learning is a social process and is shaped by social development in collaboration with more capable peers. The implication is that learning occurs from interactions with one's own learning process (Bosman & Schulze, 2018:2; Mshayisa, 2018:9) but, most importantly, "that learning becomes meaningful with others" (Lombardi & Oblinger, 2007:9; Ozdamli, 2012:929; About Learning, 2018:17).

Prior to the Covid-19 pandemic, UoTs in the South African context were operating from a context of face-to-face academic tuition framework, where university campuses were where most of the learning and learning-related activities took place. In March 2020, as the pandemic spread globally, the World Health Organisation decided to limit the spread of the pandemic. Lockdowns were suggested as the best mitigating strategy, which saw institutions of higher learning, together with industries, migrate activities to online platforms to allow the academic programme to continue and alleviate further negative implications of the lockdowns (South Africa, DHET 2022:21-22). The migration of organisational and personal communities from a physical setting to a virtual platform saw growth in collaborative opportunities online, which bolstered the importance of social connections and proved to be a drastic change in the practice of teaching and learning (Dukhan, 2020:51).

3.4.1 The Community of Inquiry framework

In HE, collaboration opportunities are created through interactions with peers, tutors or mentors and with other students (Hrastinski, 2019:565). Support mechanisms by universities realised the need for tutors in HE to assist students with complex subject content. Other support mechanisms, like mentors, allow students to have a safe space to get emotional or mental support. All these interactions could occur through both online and physical settings, based on the design per university or students' preference. This aspect is discussed after Table 3.5 on page 56.These connections are guided by the concept of Community of Inquiry (COI) framework that supports connection and collaboration amongst students (Garrison & Vaughan, 2008:9-10), which promotes reflection for learning (The Community of Inquiry, n.d.). In evaluating theories that have been applied in blended learning research, as Garrison (2013:1) and Graham (2013:339-340) emphasise, this model is the most used. Three key elements of the COI framework include (Garrison & Vaughan, 2008:18-21; The Community of Inquiry, n.d.):

- Social presence – the ability of students to foster relations with the community, and how well individual students can project their own personalities within the environment, thus offering opportunities for peer collaboration.
- Teaching presence – providing structure, facilitation and direction on the educational experience is critical, making the role of the lecturer critical for blended/hybrid classes.
- Cognitive presence – the progression of a collaborative learning process, which is framed by following the process: from problem identification, exploration of the problem, integrations of ideas, to a resolution. That is the continuous process of information exchange and testing concepts, leading to knowledge creation (Vaughan, 2010:178; Bryan & Volchenkova, 2016:27).

The theory is built upon principles that drive distance learning, which could be derived from Moore's theory of transactional distance, developed in 1980, which considered three critical elements of distance learning: the structure of the environment; degree of meaningful dialogue (communication), and learner autonomy (personal directedness) (Ustati & Hassan, 2013:294; Moore & Diehl, 2018:37-41).

Reviewing the COI model against the transactional distance theory, which speaks to distance learning where learning activities are purely online (Hapuarachchi, 2017:564), research has highlighted the need for structure and constant dialogue by students in the learning process. This enables them to continuously reflect on learning taking place and problem-solve issues in completing projects (Beldarrain, 2006:144; Garrison & Akol, 2013:1; Gilakjani et al., 2013:50; Robinson et al., 2015:280-281). The presence and easy access to other students tutors/teachers/lecturers is essential to provide structure and guidance on desired learning outcomes as well as the entire learning process (Rix, 2011:424).

Table 3.5: Community of Inquiry categories and indicators

Elements	Categories	Indicators (examples only)
Social presence	Open communication	Enabling risk-free expression
	Group cohesion	Encouraging collaboration
	Affective/personal	Expressing emotions, camaraderie
Cognitive presence	Triggering event	Having sense of puzzlement
	Exploration	Exchanging information
	Integration	Connecting ideas
	Resolution	Applying new ideas
Teaching presence	Design & organisation	Setting curriculum and methods
	Facilitation	Sharing personal meaning
		Focusing discussion

Source: Garrison and Vaughan (2008:19)

Debates around blended/hybrid learning centre on effectiveness of the models and their potential to accommodate different learning styles (Bryan & Volchenkova, 2016:28), affording an opportunity for meaningful learning (The Community of Inquiry, n.d.; Vaughan, 2010:178; Robinson et al., 2015:285-286) where students feel they have been afforded a safe space to participate (Rix, 2011:426). As the learning environment becomes more hybrid in approach, it is essential for the body of language on blended/hybrid learning to include students' voice regarding experiences of various models/classes or blends implemented in the various academic fields to get closer to discovering a model that benefits both teaching//learning (Costa et al., 2019:398; Dlamini et al., 2021:35). Most of all, it is important to unearth possible unrealised benefits of models that are disrupting the traditional teaching/learning models, and offer better teaching practices to accommodate students who might not have benefited from traditional teaching modes (Celestino & Yamamoto, 2020:4).

Considering the debates in Chapters 2 and 3 on considerations that are critical for the success of students, personal learning attributes, the learning environment, and instructional design are critical. The benefits of improvement in students' engagement with technological developments in education on pedagogical practices and influences cannot be ignored. Further, the impact on theoretical developments is also critical, where blended/hybrid learning is still a developing phenomenon (Beldarrain, 2006:147; Bond et al., 2020:2). Other benefits that have been observed include collaborative learning interactions with improvements in developing 21st century learning skills (Cleveland-Innes & Wilton, 2018:13; Ocholla & Ocholla, 2020:364).

3.5 Approaches to access and support in higher education

The previous sections reviewed learning style theories, followed by a review of the COI theory on hybrid/blended learning with a discussion on theories underpinning hybrid/blended learning. The following section discusses the theory underpinning issues of access and academic support in HE as critical aspects of the 21st century university's landscape.

3.5.1 Fraser's normative framework

Educational facilities differ in backgrounds, but universities and policies on HE try to level the terrain for academic participation (Mzangwa, 2019:9). The learning environment is a critical factor in this study as equality is the goal (Hlalele & Alexander, 2012:488), but differences still persist and one needs to understand whether the support mechanisms put in place to assist with academic support are working (Bozalek & Boughey, 2012:689).

3.5.1.1 Issues of access

The education transformation agenda focusing on curriculum reform (Council on Higher Education, 2010:1) improvements of access to HE, and support mechanisms (DHET, SA, 2020a:2; DHET, SA, 2020b:8) has been gradually making strides in addressing issues of inequality in the university learning environment. New challenges, however, arose when the Covid-19 pandemic hit as students' need of the university environment changed from being outside of the physical learning environment to the home environment (Hedding et al., 2020:1-2). Issues of inequality from the university's perspective in the context of a hybrid learning environment were difficult to cater for. This raises the question of whether blended/hybrid learning could reverse the strides made in the transformation agenda (Li et al., 2014:1813).

Curriculum design, when it is investigated, focuses on being the centre for quality aspirations in HE to develop curricula that respond to the needs of industry, which is inclusive. In South Africa, the issue of access to education is a critical one (Council on Higher Education, 2010:23; 2020:60-66). The context of inclusive education in all school sectors relates to resourcing and offering support mechanisms within learning environments (Lynch & Baker, 2005:131-132). Also, financial affordability, issues of internationalisation or decolonisation of curricula, diversification of student and staff populations and persons with disabilities need to be considered (Ramaahlo et al., 2018:4; South Africa, DHET 2022:15,20). With regard to education quality, studies that take into consideration students' learning experiences are critical.

3.5.1.2 Issues of academic support

Akojee and Nkomo (2007:392) highlight issues of student support as critical elements of "access with success". Issues of the learning environment, being a split in the external and internal environment to the university, are critical as they directly impact forms of support institutions of higher learning should take into consideration. The framework and planning for implementation of the DHET Policy on E-Learning/Open Learning strategy in PSET is in progress, with the envisaged implementation for 2023 (South Africa, DHET, 2022:56). It will be a critical tool in ensuring that all considerations around the issue of student support in the hybrid/blended learning environment are considered. Inclusion of students' voice in the body of knowledge considered in the process in guiding decisions could be critical as it will guide policymakers on user experiences to inform decisions in this process.

Whereas the Council on Higher Education (2020:14), using "*students' access to and use of learning materials*", focused on operational aspects of access and learning activities, this study

evaluates issues of learning access, assesses the impact of various learning environments, availability of resources, and mainly evaluates students' learning preferences based on their reflective experiences. With the constantly changing environment, societal needs, and technological advancement, these will have an impact on students and their developmental processes. As such, academic practices, curriculum content and teaching practices also have to evolve (Akojee & Nkomo, 2007:393).

3.6 Summary

The literature reviewed in this chapter focused on learning theories, blended/hybrid learning theories, and issues of access and the learning climate that formed the theoretical underpinnings of this study. This chapter provided a synopsis of students' learning styles and models to facilitate understanding of the elements of students' learning preferences and considered understanding students' learning preferences within certain learning environments. The previous chapter, Chapter 2 presented factors that affect students' learning, which are considered integral factors that could impact how students may prefer to learn. As practitioners/lecturers, it is necessary to understand fully the diverse issues linked to students' preferences, classes of students with different backgrounds, interests, experiences, abilities and learning styles, to inform well-placed programme design (Allen et al., 2010; Balula et al., 2019; Lombardi & Oblinger, 2007:87-89; Mashayisa, 2022:13; Online Learning, n.d.).

Chapter 4 discusses the research methodology, outlining procedures that were followed in collecting data for the study.

CHAPTER 4
RESEARCH METHODOLOGY

4.1 Introduction

Chapters 2 and 3 dealt with literature review; the former focused on the conceptual framework, while the latter addressed the theoretical framework by discussing factors that could impact student learning preferences and theories around students' learning preferences. This chapter focuses on research methodology and is essential in specifying the processes and decisions in study populations and samples, data collection instruments and processes, as well as analysis processes. It outlines the steps for the design of this study. The research approach, as well as the background to selected research methods are outlined. The study sample and sampling procedures are explained, as well as an in-depth explanation of the design and procedures adopted for the research tools, data collection methods, and data analysis. Most critically, ethical considerations involved in collecting and managing the data were addressed and the limitations of the study explained.

4.2 Research objectives

To provide a guide for the steps followed in a research project necessitates outlining and a reviewing the objective of the study objectives. The review offers an opportunity to enquire into the informed decisions on the types of data required for the study and the parties to provide that data. Furthermore, it requires consideration about what tools are suitable to collect data, how data will be collected, and analysed. To provide a framework of the processes followed, this study's objectives were to:

- Investigate students' learning preferences in tourism programmes at the selected UoTs in South Africa.
- Evaluate current forms of student engagement in tourism programmes at the selected UoTs in South Africa.
- Assess students' perceptions of learning environments of the selected UoT Tourism Management programmes in South Africa.
- Establish the profile of Tourism Management students at the selected UoTs in South Africa.
- Consider the impact of Covid-19 on students' learning.

4.3 Research philosophy

Researchers consciously or unconsciously bring their philosophical beliefs into research processes (Saunders et al., 2009:124; Creswell, 2013:15). Saunders et al. (2009:124) define a research philosophy as "*a system of beliefs and assumptions about the development of knowledge".* It is these beliefs that guide the choice of a research strategy, research methods, data collection strategies, and analysis processes, collectively referred to as the unspoken assumptions about knowledge, society and values (Galliers, 1991:328; Žukauskas et al., 2018:121). It is the aspects of ontology, epistemology and methodology, or the "what, why and how" of research (Berman & Smyth, 2015:130) that shape the research philosophy (Leavy, 2017:12). It is the researcher's responsibility to make explicit his/her beliefs as they form the basis on which the study is based (Mkasi, 2018:178; Phair & Warren, 2021).

Ontology, for example, relates to the nature of human beings (Khatri, 2020:1438). In this study, the belief of how students learn in specific settings or result from their settings is brought forth in the literature. Issues of social relatedness are critical in developing and necessitating the question of whether forces around students change their behaviour. Reviewing students in different universities and assessing behaviour in different learning environments might depict different learning preferences. Plowright (2011:176) summarises this by indicating that: "*ontology is about the inescapable and ultimate reality that we are all part of*".

Epistemology is about the ability to identify components of the real world and strategies to objectively measure these components, knowledge or knowing or how we know what we claim to know (Tombs & Pugsley, 2020:2). Epistemology assists researchers to justify the truths of beliefs they hold (Plowright, 2011:177). Khatri (2020:1438) refers to epistemology as the type and source of knowledge generation and further indicates that it can be influenced by one's own experiences and beliefs (Flick, 2020:9; Kenaphoom, 2021:657). The Covid-19 pandemic impacted negatively on learning environments, forcing the closure of physical spaces of most industries and services, which forced universities to quickly adapt academic delivery (Disaster Management Act 2002, 2020:3-4). Establishing what people perceived of their learning experiences was the best possible approach for this study to answer the question of whether the changes in learning environments had significant impacts on students' learning in tourism departments (DHET, SA, 2020:6b).

A study methodology is a disciplined approach to generating the required knowledge (Khatri, 2020:1438) and a systematic process to solving research problems (Kothari, 2004:8). The research logically followed particular steps in the quest to gain the required knowledge (Kenaphoom, 2021:662). Methodology is about the relevant application of research techniques

to enquiries as well as understanding the context of the application of the research methods (Kothari & Garg, 2020:7-8).

Axiology or self-evidence, refers to ethical values (Khatri, 2020:1438) or personal biases (Saunders et al., 2009:124) that guide any research. Farrow et al. (2020:12) and Khatri (2020:1438) suggest that personal values have an influence on making decisions and ask the question: *"are our personal values influenced by personal bias?"* Wahyuni (2012:70) likens bias to a belief that quantitative studies do not offer as deep an understanding of students' perceptions as qualitative studies. These are considerations have an influence on the approach a researcher follows.

4.3.1   Research paradigms

Following the focus of the study on students' learning preferences, certain theories that are essential in guiding the direction of the study were reviewed (Garvey & Jones, 2021:2). Creswell (2003) notes that research philosophies guide decisions to research paradigms, based on one's 'worldview of assumptions' of the paradigm, training and experience, psychological attributes, nature of the problem, and audience of study. The three common research paradigms identified from the literature are positivism, interpretivism and pragmatism (Wahyuni, 2012:71; Creswell, 2013:36; Creswell, 2014:35; Pham, 2018:2; Žukauskas et al., 2018:123; Khatri, 2020:1438). These paradigms are explained in this section, followed by the research approach adopted:

- Positivism is mostly applied in quantitative research where knowledge requires an objective view to assess (Žukauskas et al., 2018:123). Information derived from this process goes through mathematical treatments, which are exclusive of authoritative knowledge (Kenaphoom, 2021:661) and this approach is applied in quantitative research (Pham, 2018:2). This author indicates that research processes followed by positivists in sampling and empirical testing afford data to be reliable and of high validity. That being said, the paradigm has a limitation in its inability to measure phenomena related to attitudes, thoughts, or intentions of subjects without evidence thereof (Pham, 2018:3).

- Interpretivism is a direct critique of the positivist paradigm. This paradigm involves the belief that social and cultural factors have an impact on individuals where phenomena are relative to unique contexts. Thus, researchers who apply this paradigm believe there are multiple options for data collection for each context and for a better understanding of a phenomenon within a particular context (Creswell, 2013:35-36; Pham, 2018:3). The reason for applying this paradigm is to collect authentic data related to the object of the research (Pham, 2018:3). Researchers cannot completely

separate themselves from the research process, based on their knowledge of the phenomenon of study in that certain decisions in the research process are informed by a researcher's bias. Critiques of this method refer to the researcher's possible bias, beliefs and own interpretations that might impact research outcomes.

- Pragmatism is an approach to research from a practical point of view. This paradigm places the research objective at the centre of decisions surrounding the research process (Kelly et al., 2018:15). This philosophy implies that multiple realities can be examined and interpreted in the quest for knowledge and the belief that the research aim and objectives guide the research choice (Wahyuni, 2012:70). The choice of which methods to best employ in the research process is the researcher's decision, based on the required data for knowledge acquisition (Wahyuni, 2012:71). Creswell and Clark (2007:180) and Creswell (2014:40) believe the research approach should not be linear and only be guided by theory or external events. There should be consideration of aspects and possible best options to answer research questions (Wahyuni, 2012:71). The choice of these options is based on experience, authoritative knowledge or knowledge gained from the literature and knowledge gained from research (Creswell et al., 2003:180; Plowright, 2011:8-13; Kenaphoom, 2021:654). Based on all these considerations, the pragmatic paradigm was applied in this study (Kivunja & Kuyini, 2017:38).

4.4 Research approach to this study

A research approach explains the way one goes about the research. It is the plan and procedures for the research based on broad assumptions on which methods are to be used to collect data as well as how the data will be analysed (Creswell, 2014:12). The plan involves choosing between a deductive or inductive research approach. The deductive approach starts with understanding theories that influence the type of research, followed by outlining the aim and objectives of the study and, finally, collecting the data. The inductive approach, on the contrary, begins with data collection and works towards building a theory based on the data collected (Leshem & Trafford, 2007:98; Saunders et al., 2009:146-147), processes Bhattacherjee (2012:3) refers to as the theory-testing and theory-building approaches.

For this study, both deductive and inductive approaches were put forward as requirements, based on the research objectives and benefits of both processes (Park et al., 2020:2). The deductive approach was required to test assumptions around teaching and learning systems that are going through rapid changes, and whether these changes have an impact on students' learning. The inductive approach was required to proceed from the narratives of students on preferred ways of learning and factors that impact their learning styles (Creswell, 2014:4;

Kenaphoom, 2021:655). Both approaches were required for a study where Saunders et al. (2009:150) make an argument for a pragmatic approach supported by Farrow et al. (2020:18) and Park et al. (2020:6). A further reason to follow both approaches, based on the choice of a pragmatic research approach, was application of the value of results in research sites, rather than simply determining the truth of the results (Council on Higher Education, 2010:168; Farrow et al., 2020:18). The process of triangulating data collected deductively to that of narratives collected inductively allowed for a level of rigour in the process, leading to dependability of the results. The definition is supported by Mangan et al. (2004:569) who use the analogy of a process in land surveying, which regards triangulation as fixing the position of an object and measuring it from two different sides or positions, this process assists in the validation of research results.

4.5 Research methodology

The investigation into the learning preferences of students was based on reporting from the living experiences of participants to build on the body of knowledge around teaching and learning practices in the field of higher education (Leavy, 2017:4) with an element of a post-positivist view in attempting to determine causes that may affect ways student learn (Creswell & Creswell, 2017:16-20). As multiple measures of the phenomena around students' learning preferences was crucial (Creswell, 201416; Killingback et al., 2020:2), the most popular research method adopted was the pragmatic research approach, as defined in Section 4.3.1. A mixed methodology of quantitative and qualitative data was applied for a better understanding of the research objectives linked to the study (Creswell & Clark, 2007:6; Farrow et al., 2020:52).

Mixed methodology research is a combination of the quantitative and qualitative methods of data collected in a single study, or multiple studies, with data triangulated (Farrow et al., 2020:52; Flick, 2020:190). A mixed methodology provides strength to the research process by offsetting the limitations of either method in a single study, where quantitative research does not consider the context of the setting in which people share information and voices of individual participants are not heard. On the contrary, qualitative research is viewed as limited in the way researchers make personal interpretations of data, pointing to a possible level of bias, thus making generalisability of results difficult (Creswell & Clark, 2007:90). A combination of both methods allows for mixed-method research to provide a broader, quantified and deeper qualified perspective to the phenomenon being studied (Wilson-Strydom, 2012:134; Farrow et al., 2020:62).

The flow of a mixed-methods study is also a debate in that there needs to be a clear definition of the application of the process. The mixed methodology could follow a combination of methods where both quantitative and qualitative data are collected in a concurrent, sequential, or parallel mix (Kelly, 2012:15; Flick, 2020:190). In the concurrent and parallel mix, data are collected independently, whereas in the latter the collection process takes place at the same time. In the concurrent mix, as might be the case, no one method is used to inform the other to allow further analysis of data. In the sequential mix, data collection takes place in a phased approach, the goal being to allow further probing where gaps can be identified in the collected data from the first phase (Onwuegbuzie & Collins, 2007:290-291). These arguments are reflected in Figure 4.1.
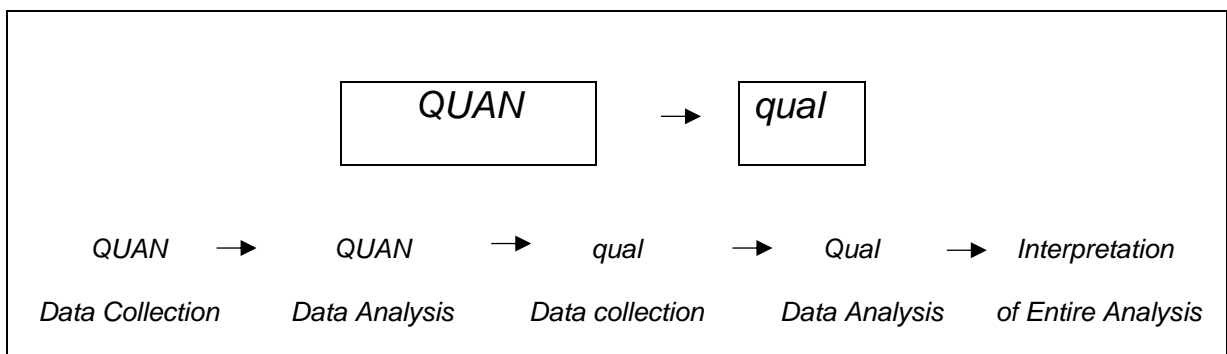
Figure 4.1: Sequential explanatory design
Source: Creswell and Clark (2003:225)

The mix of the research flow determines the type of study to be conducted and the data sought for the study. In the investigation, the search for potential explanations of the observed phenomena calls for an explanatory enquiry (Garrison & Vaughan, 2008) (Bhattacherjee, 2012:6). In this study, quantitative data was collected and analysed, followed by a qualitative enquiry (Creswell, 2014:44) (Figure 4.1), indicating a sequential approach to data collection. An explanatory research approach is relevant in studies aimed to explaining cause and effect, defining correlations, or simply explaining why things are the way they are (Leavy, 2017:5,7). An explanatory mixed-method approach was employed to collect data pertaining to aspects around learning preferences of students of tourism programmes at selected UoTs in South Africa.

4.5.1. Key considerations of mixed-method studies

The strengths and limitations of individual methodologies need to be considered when researchers decide on mixed methodology studies to be able to determine the best fit-for-purpose model. Park et al. (2020:6) highlight the limitations of quantitative data as being superficial and qualitative data as being open to researcher bias and limitations of data analysis (Saunders et al., 2009:128-129). The use of a mixed research approach, which includes the

quantitative and qualitative methods in one study, where the process allows for objective numerical interpretation of large quantities of measurable information followed by a qualitative review which validates the data, allows for generalisability of research results (Park et al., 2020:6).

This research was conducted in sequential phases, allowing for a chance to prove true a phenomenon or the possibility of proving diverging points in research, which can prompt further opportunities for researching the object in question (Wakelin-Theron et al., 2019:8). Mixed methodology research allows for the acquisition of a more complete picture of the results where the quantitative data provides the breadth of understanding and the qualitative data provides the depth (Wilson-Strydom, 2012:134). It is critical for researchers to determine the appropriate design, relevant questions with relevant tools, and the best timing of data collection. Incorrect decisions could lead to detrimental results for the study (Dawadi et al., 2021:28).

4.5.2 Data collection tools

The study flowed in a phased approach where quantitative data was collected first to enable the researcher determine if certain data emerged from the survey that would be further examined through focus group interviews. Data collection phases are discussed with justification for the sampling technique in Section 4.6.1.

4.5.2.1 Quantitative method – self-administered surveys

A census enquiry of undergraduate tourism programmes student cohorts was applied. An online questionnaire was sent to specific academics at the participating UoTs to assist in distributing the link to students. The self-administered survey included open-ended and closed-ended questions. The online survey tool used a Lime survey for the study. The flexibility and functionality of the survey instrument made it a tool of choice for the study. The design of the questionnaire allowed for students to complete the survey at different sittings. An incomplete survey could be saved with a unique code to be easily accessed at a later stage for completion and submission. The survey design also allowed for content to be sectioned into different focus areas, which allowed for easy understanding of data required from the survey participants. The questionnaire consisted of Sections A to F, and each included a heading that introduced the section by providing a short description of the information in the section (see Appendix G: Draft Survey on MS Word document (Lime Survey link version available on request):

- Section A – Demographic data such as gender, race, and geographical questions about where students originate and where students reside while studying. Questions around

the payment of fees, transport logistics to and from campus for face-to-face (f2f) classes and space for online learning were included.

- Section B – Student learning activity: this section comprised closed-ended questions on a five-point Likert scale of 35 items assessing students' learning styles, with adopted elements of the VARK and Kolb models.

- Sections C and D reviewed the academic participation behaviour of students and practices before, during and after assessments. This section used close-ended questions with some open-ended questions.

- Section E – The learning environment is a critical aspect of students' learning that may influence learning preferences. A review of facilities available to students in the various physical university environments or the remote learning environments students experience was sought. This section used close-ended questions, with some open-ended questions.

- Section F – the impact of Covid-19 on academics was evaluated and the impact this had on learning preferences. This section comprised of items on a five-point Likert scale assessing learning practices during remote learning and issues related to access to learning during the pandemic.

Each section included in the survey included a heading and introductory phrase, advising on what the focus of that section was.

4.5.2.2 Qualitative research – focus group interviews

As the research objectives of the study were outlined, themes for designing the interview schedule were drawn from the research objectives, and inferences were made from the survey on elements that required further analysis. A semi-structured interview schedule was designed (see Appendix F: Request for CPUT interview to be converted to e-mail post lost connection due to power outages, with focus group questions). The focus group interview took place on Zoom or LMS online platforms and required an introduction that would create an open environment. Critical points included a welcome with assuring information on creating a safe discussion space, an overview of the discussion, and some grounds rules before the first questions were posed (Krueger et al., 2001:4). To allow for a comfortable environment, the moderator's camera was on at all times during the discussion (Xaba, 2021:29) (Krueger et al., 2001:4). The focus group interviews were planned to be hosted on different days for each participating university. Predetermined questions formed the basis of the discussion to ensure the bulk of similar data was collected from all discussions (Murray & Andrasik, 2018:8). Flexibility was ensured for any probing that would have been required during the interviews.

4.6 Population and sample

The primary population for this study was undergraduate Tourism Management students at all study levels at four selected UoTs in South Africa (Figure 4.2). Two coastal and two inland UoTs were identified, based on the vocational focus of their three-year undergraduate programmes and similarity in course design.
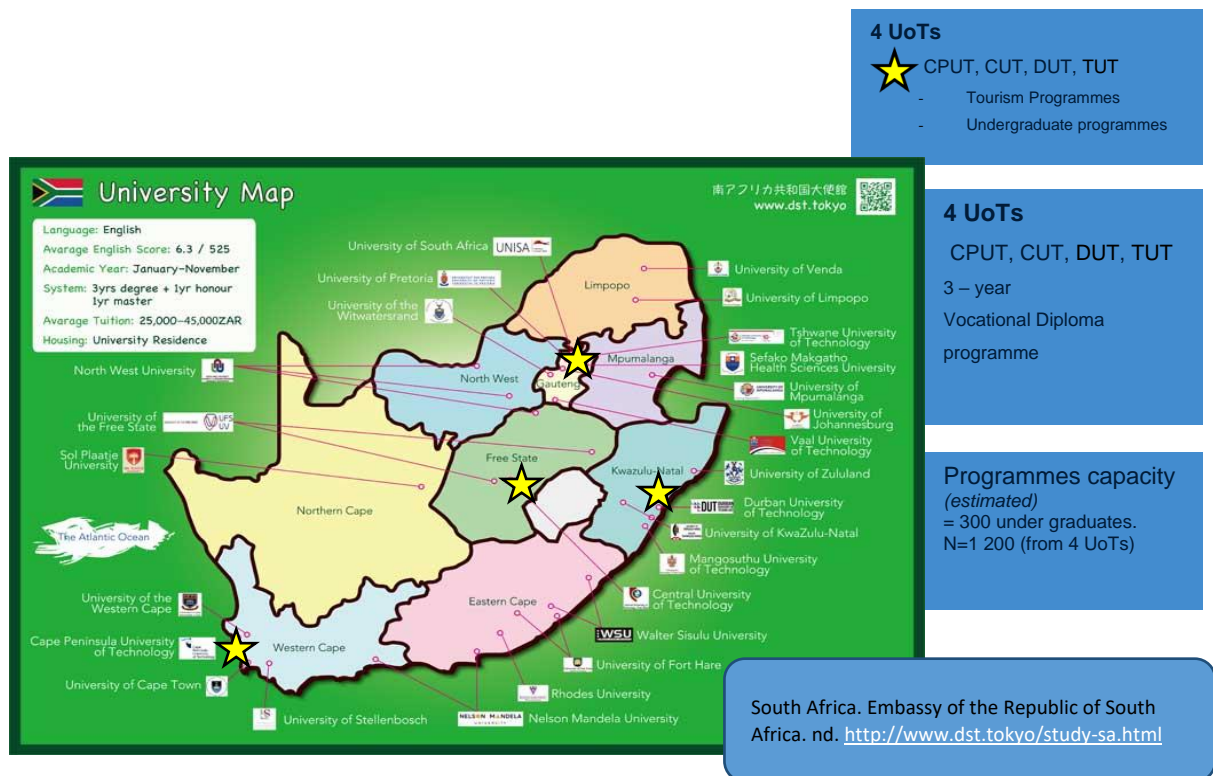
Figure 4.2: Study setting and population.
Source: Embassy of The Republic of South Africa, Tokyo (n.d.)

The institutions each had an estimated capacity of 300 registered undergraduate students, resulting in an estimated study population of N=1200 students from the four selected UoTs, as indicated in Figure 4.2 and Table 4.1.

It must be noted that one of the chosen UoTs, the DUT, yielded a 0% response rate, which posed challenges to the study. The non-responses from the UoT might have been compounded by a multitude of events that occurred in the geographical location of the university. The province of Kwa-Zulu-Natal (KZN) and the DUT as an institution, suffered from a series of unrelated events that took place in the area after the start of data collection for this study, and until completion. The institution was hit by student unrest in 2021 (IOL, 2022; Brandt, 2022; Thwala, 2022). The July 2021 unrest, which led to massive public looting and property destruction in the Gauteng and KZN provinces (Harding, 2021) also, unfortunately,

led to the loss of life of a DUT student (Ngqakamba, 2021). Then in March of 2022, the city of Durban, where the tourism department campus participating in the study is situated, was hit by devastating floods and mudslides (Monama, 2022). As a result of these events, the final study population comprised the remaining UoTs: CPUT, CUT and TUT with an average study population of N=900 (Table 4.1).

Table 4.1: Anticipated vs participating study participation

Anticipated study participation	ACTUAL participation in the study
CPUT, CPUT, DUT, TUT	CPUT, CUT, TUT
Average study population S= 1300	Average study population S=900

Source: Researcher's construct

The data collected focused on the profiles of students registered in Tourism Management programmes, how students preferred to learn and to be taught, what methods of teaching were perceived beneficial for learning and students' perception of a conducive environment for learning. From this data, preferred learning styles could be developed and the data could also provide insight into where these students thought gaps existed in the contemporary higher education system relating to teaching and learning practices. Three UoTs in South Africa were selected based on the design of tourism qualification.

Decisions on criteria for the study sample were based on analysis techniques and defined significance values. Based on these criteria, a suitable sample size was determined based on the research topic, study aim, best practices from similar studies, variability of the population and research design (Onwuegbuzie & Collins, 2007:287-289).

4.6.1 Choice and justification for sampling technique

The participating institutions were selected based on the vocational framework of the tourism qualification (three-year Diploma in Tourism Management and a fourth-year Advanced Diploma track) offered in South Africa. The chosen UoTs also implemented an extended curriculum programme (ECP), which is a three-year diploma programme with an additional one-year introductory level for HE programmes. The programme was introduced after an amalgamation and redesign of previously implemented programmes that assisted with widening access to HE in South Africa. It was introduced in UoTs in 2007 (Slabbert & Friedrich-Nel, 2015:47) The ECP programme was designed as an added one-year intervention programme based on widening access for students who may lack proper preparedness for university. Psychometric assessments during the application process for HE, such as the national benchmark test (CPUT, n.d.), were used to assess the suitability of candidates, which

was later changed to an assessment of the national senior certificate, as a tool to determine qualification for access. A student registered for the ECP programme would then pursue the diploma qualification over four years, instead of the traditional design of three years. The first year of the ECP diploma differs from the mainstream diploma in that in the first year of entry to HE, ECP students can only register for half of the subjects offered in the mainstream diploma and receive additional academic support in the first year of study. The inclusion of ECP first-time entrants was critical for the study to determine what learning preferences the students in these programmes had.

As the study population was to be determined, access to students registered for tourism studies at the selected UoTs involved some challenges. The data collection time was complicated by two events Firstly, the spread of Covid-19 pandemic (World Health Organisation, 2020a; World Health Organisation, 2021:1) and the resulting Covid waves, which necessitated lockdown implementation (Hedding et al., 2020:2; Twesige et al., 2021:146) and meant many organisations and institutions of higher learning changed to virtual learning. Even as lockdown restrictions were eased, the implementation of lockdowns remained sporadic, which meant that institutions which had decided to revert to face-to-face classes would have to halt operations at the announcement of another lockdown (Hedding et al., 2020:2). This forced the decision to collect only online data for this study.

Secondly, ethical considerations regarding online data collection were affected by the amendments to The Protection of Personal Information (POPIA) (Act 4 of 2018) (Universities South Africa (USAF), 2020b:3). Universities worked to ensure compliance on access to students' personal information and data for research while ensuring compliance (Universities South Africa (USAF), 2020a). That data collection became more stringent. To enable data collection, the researcher had to send a survey link to the representatives of the applicable UoTs' Tourism Departments which, in turn, disseminated the information to students. The researcher was not allowed direct access to the students' learner management systems (LMS) to disseminate the data personally. Consequently, data collection was to be coordinated through the Tourism Department's representatives at the selected UoTs.

Non-probability sampling was employed to collect and receive data from all members of the chosen population. A pragmatic approach necessitated a census sampling technique, after consideration of several critical questions, based on available options to the researcher (Plowright, 2011:13). Henry (2009:90-91) identifies questions researchers could ask themselves when faced with decisions of choosing appropriate sampling methods, including issues of the probability of selection, number of units required for the enquiry, appropriateness of the sampling, and outcomes of the data based on the study aims and objectives (*see* Table 4.2). Added to these questions, the data collection procedures and access to participants were

aspects in the choice of a suitable sampling procedure for the study. As a result of the limitations to direct access to study participants, as outlined in section 4.6.1, the issue of sampling was difficult choice because delegating this role to individuals who do not have direct participation in the study could create challenges for the outcome of the study. Following the guidelines of a pragmatic approach to the study, the best sampling approach was non-probability, with a census survey conducted for the study.

Table 4.2: Questions for sample decision

Presampling choices

What is the nature of the study—exploratory, developmental, descriptive, or explanatory?

What are the variables of greatest interest?

What is the target population for the study?

Are subpopulations important for the study?

How will the data be collected?

Is sampling appropriate?

Sampling choices

What listing of the target population can be used for the sampling frame?

What is the precision or power needed for the study?

What sampling design will be used?

Will the probability of selection be equal or unequal?

How many units will be selected for the sample?

Postsampling choices

How can the impact of nonresponse be evaluated?

Is it necessary to weight the sample data?

What are the standard errors and related confidence intervals for the study estimates?

Source: Henry (2009:91)

A census enquiry for small or manageable study populations is an attempt to gather information about every participant in a chosen study population (Israel, 1968:2; Cantwell, 2011:92). The choice of the census enquiry is based on the goal to achieve greater accuracy and reliability of data collected for the study (Shenoy et al., 2005:12) in situations where the assumption of a normal population is poor, according to Israel (1968:3). In this particular study, the challenge was the limitation of direct access to the study population, which raised a serious concern with regard to anticipated response rates, and levels of accuracy, which could lead to sampling errors (Kothari, 2004:14,55). Challenges with non-probability sampling have been considered with representability of the study being a considerable challenge impacting the generalisability of the study results. Allowing for the entire selected study population to participate in the survey

(Parker, 2011:2-3) would, hopefully, mitigate these challenges to allow for acceptable outcomes. The invitation to participate in the study was sent for dissemination to all students registered in the tourism programme of the selected participating UoTs via their respective tourism departments. The process followed in this study is also defined by Onwuegbuzie and Collins (2007:285) as a simple sampling scheme applied in mixed-method studies, where the simple sampling technique is designed to provide each member of the chosen population an equal and independent chance of participation in the study.

Properly planned sample procedures have a plan that involves choosing between (a) determining the study population, (b) providing characteristics of the study population (c) identifying the sampling technique, (d) determining the sample size (e) selecting the sample, and (f) testing power representativity of the sample (Delİce, 2010:12). The study population and population characteristics and sample size were discussed in Section 4.6. The following sections discuss data collection procedures and data analysis techniques.

4.7 Participation procedures

Ethical clearance from each UoT was arranged through the Tourism HoD, where each participating tourism department worked with a lecturer who had access to the students' LMS. Contact lecturers received continuous updates from the researcher to assist with sharing a portable document format (pdf) invitation with the survey link and information for participation in the focus group interviews. Three calls for participation and completion of surveys were sent at two-weekly intervals. Announcements and survey links were communicated to the organising HoDs or assigned lecturers at the participating UoTs.

Focus group interviews were planned per individual institution, where an online session was planned for each group at each participating UoT. Being aware of challenges with internet data for students, it was critical to consider offering cellular phone data to be offered to participants as availability of those who chose to participate in the study was paramount. A mini-introductory pre-recorded video by the researcher was sent to the participants to acquaint them with the information requirements before the session started and in a further bid to increase awareness of the importance of the study.

4.8 Data collection

Accurate collection of research data is essential for the integrity of the research, as much as the process is crucial in the design of the research instruments (Kabir, 2016:202). The research instruments went through various verification processes, including working closely with a statistician, study supervisor and academics in the researcher's department. Verification of the

questionnaire was conducted on the forms and types of questions, alignment of research tools to study objectives, and pre-coding to ensure relevant analysis tests (ACAPS, 2016:2). The last verification process was the instrument pilot, which is discussed in the next section. The process or ways in which data was to be collected also required consideration of sample selection, data required for the study, collection processes and analysis. Very important was the relevance of steps to be followed in collecting the data, based on the research paradigm (Richards & Morse, 2017:17). Data was collected in two phases, phase 1 being quantitative data collection and phase 2 collection of qualitative data.

Phase 1 included a first step: communicating directly with the head of department (HoD) at each participating UoT to introduce the study and allocate an academic who would assist distribute the invitation to participate in the study to the entire department. The method of disseminating information to students was left to the choice of the HoD (Appendix C: Letter to Tourism Department HoDs' requesting approval to conduct research in departments). Once a contact lecturer was appointed or the HoD indicated an interest to disseminate the information to the entire department, the second step of phase 1 was initiated. The survey invitation on a PDF document, with a survey link, was sent via e-mail for academics to disseminate to the students in the Tourism Department, through their LMS systems. Timelines for data collection were communicated. To ensure increased participation in the survey, timely reminders were sent for remind the students the contact academics to complete the survey or finalise incomplete submissions through. The benefit of a Lime Survey is the ability to save incomplete surveys to complete at a different time (see Appendix G: Draft Survey on MS Word document (Lime Survey link version available on request). The reminders were helpful in ensuring incomplete surveys were completed.

Phase two of the study involved conducting online focus group interviews. These were planned for each participating institution to have individual sessions with interested participants who were also part of the sample group for the first phase of the study. The survey invitation that was sent in phase 1 of the study also outlined the second phase of the study and indicated the researcher's e-mail address for interested parties. At the end of phase 1 of data collection, a reminder e-mail for the focus group interviews was forwarded again to the lecturers and HoDs at the participating institutions to circulate to students in an attempt to increase participation in the online focus group discussions.

4.9 The pilot study

To ensure validity and reliability of the data collection instrument(s), a pilot study was conducted with postgraduate Tourism Management students at the Cape Peninsula University of Technology (CPUT). The pilot was used to confirm whether the instrument for the focus of

the study directly linked with the problem statement and provided relevant data for the aim of this study (El-Bishouty et al., 2019:4). The students' questionnaire focused on learning styles and preferred modes of learning, and collected feedback from staff regarding class attendance, feedback on students' academic performance and reasons for non-attendance/preferred learning styles or "the perfect timetable" from students registered for Tourism Management studies. The survey instrument was tested to ensure understanding of instructions, the questions and the meaning of questions (Kelley et al., 2003:263).

The pilot study was a small replica of the actual study. The target group had similar characteristics as those of the study sample: the pilot group was undergraduate students in a three-year diploma course. The questionnaire design and testing of the survey instrument in the pilot study were done with the assistance of the official statistician at CPUT. Colleagues in the CPUT Tourism Department and the pilot study group were requested to complete the survey, This was to establish *appropriateness of* the survey instrument, *ease* of understanding the questions, length of *time* it to complete the survey, and, most importantly, *functionality* of the survey platform in allowing incomplete surveys to be saved and answered at a different sitting. Participants in the pilot group were also asked to highlight any other unforeseen problems. The services of an independent statistician were sought due to unavailability of the main CPUT statistician. In this process, suitability of the survey instrument was found to be in line with the objectives of the study. In addition, three staff members in the CPUT Tourism Department were requested to test the focus group *interview schedule* for any ambiguity and clarity of the questions. Colleagues were also asked to test the instrument against the study objectives. The schedule questions were found to align with the study requirements.

4.10 Data analysis

As the sequential explanatory design was followed, quantitative data was collected and analysed, followed by qualitative data, which was collected, analysed and discussed, both of which are presented and discussed in Chapter 5. The process was completed with an interpretation of both processes to assess correlations and differences in the data. Kothari (2004:323) raises pertinent arguments that all aspects of rigour or trustworthiness of studies must be clearly demonstrated as these aspects would indicate the transferability of the study's conceptual findings. Most importantly, the credibility of the study results should be easily proven (Kothari, 2004:323). Other critical elements include the researcher's reflexivity in being able to reflect on the research context and the impacts thereof on the research (Fletcher-Brown, 2020:109-110). The following discussion provides an explanation that demonstrates transparency, which is one of the goals of a research methodology chapter.

4.10.1 Quantitative data analysis

Statistical analysis was conducted on the collected data to determine correlations and regressions in the data. The Statistical Package of Social Science SPSS, version 28 was used to analyse the quantitative data. Descriptive statistics was employed to describe the characteristics of responses and demographic data, students' learning preferences, learning environments and access to learning preferences and responses about the learning environment displayed. Data was presented with the use of two-way frequency tables, pie- and bar charts.

Reliability test: The Cronbach Alpha test is commonly used to calculate the required sample size to test the alpha coefficient against a preferred power level of $p<0.05$ or predict the alpha coefficient at the preferred sensitivity level (Bacchetti, 2013:1). In critiquing the value of sample size as the quality determining factor for study result, Kothari and Grag (2020:68) caution that consideration for reliable sample size for studies relating to student participation in research should strongly consider placing more weight on the value and credibility of returned data, regardless of quantity. This is supported by Onwuegbuzie and Collins (2007:284), who hold that voluntarily returned samples in student research should hold valuable data, which then becomes the researcher's responsibility to analyse and correctly interpret the identified problem.

Descriptive statistics were used to determine the mean, median, mode, standard deviation and skewness of the collected data. This analysis answered the research question on the learning preferences of Tourism Management students at selected UoTs and activities of engagement in learning. Descriptive data on access to education during Covid-19, availability and use of resources were presented by means of tables and graphs.

Inferential statistical techniques were used to analyse the data and test the probability of dependency of variables. The technique is used to test mutual exclusivity or evaluate connections between datasets or determine trends/patterns or correlations between the study parameters. Regression tests and hypothesis tests were conducted to conclude factors that may have an impact on the learning preferences of students in tourism programmes.

The Analysis of Variance(s) (ANOVA) was used to compare the learning preferences of Tourism Management students across the participating UoTs, which compares means of multiple groups. T-tests and Chi-square tests were used to explore differences between groups of data from various institutions (Kothari, 2004:148; Wilson-Strydom, 2012:147) and included

data to determine differences or similarities in learning preferences in different learning environments. Linear regression analysis was used to assess differences in learning. Changes in learning between physical and remote learning environments and impact of Covid-19 on students' learning was determined.

4.10.2 Qualitative data analysis

Online focus group interviews were recorded on the Zoom platform or LMS platforms based on participants' preferences indicated in communication before the focus group interviews. The interviews were planned to be around an hour to an hour and a half long. The focus group started with opening questions that were used as icebreakers; with transitioning or introductory questions following about 20 minutes into the focus group discussions. These were followed by the key questions. To assist with self-reflexivity in the process, a journal was used to take notes, allowing for a coding process.

The focus group interviews were recorded and transcribed for analysis. Deductive and inductive coding were applied to analyse the data. To be able to present codes based on the study objectives and allow for immersions in the data, verbatim coding was applied to take into consideration new useful codes that may arise from in-depth discussions of the focus group interviews. Codes were classified into themes to be presented in the discussion chapter. The Atlas ti 28 analysis tool was used to conduct a thematic analysis of the focus group transcripts. Summaries of findings were supported with a graphic display of results and verbatim quotations as evidence of the interview discussions.

4.11 Ensuring quality in mixed-method research

Issues of rigour or quality and trustworthiness in mixed methodology studies entail determining validity, reliability, dependability and transferability of the study data and study procedures. Practical steps of processes that were followed to ensure the quality of research tools were discussed in Sections 4.6; 4.8 and 4.10 in providing detailed descriptions of participants and participation procedures, procedures that were followed in designing research tools, and analysis steps followed. Definitions of validity and reliability, which are critical to quality in mixed methodology research, are provided in the discussion that follows.

4.11.1 Validity and reliability

The validity of research instruments is critical in ensuring that relevant data is recorded to satisfy the study objectives. Researchers are concerned about internal and external validity of

studies, where internal validity relates to how well the study was conducted (Kothari, 2004:73) and external validity determines how representable or applicable the study findings are to an entire population. (Kivunja & Kuyini, 2017:33). When compared to qualitative research, internal validity is equated to credibility and external validity to transferability of the qualitative data (Wahyuni, 2012:77), which are discussed in the next section.

Reliability is linked to dependability in qualitative research. One of the most used techniques in reliability calculations is the Cronbach alpha test. In mixed-method studies, validity can be found through data triangulation (Harmon, 2017:52) to ascertain the consistency of measuring tools and accurate measurement of the phenomenon under investigation. The robust process of the design to testing research tools, as was discussed in this Chapter, is also critical in ensuring the quality of data to be collected (Kelley et al., 2003:263).

Table 4.3: Demonstrating rigour and quality in mixed methods studies

Rigour in quantitative research	Quality measures in qualitative research	Definitions
Internal validity	Credibility	A true reflection of data collected
External validity	Transferability	Applicability to the entire population
Reliability	Dependability	If the study can be replicated with similar results
Objectivity	Conformability	If others can deduce the same results from study findings

Source: Adapted from Wahyuni (2012:77)

4.11.2 Credibility and transferability

The philosophies that underlie qualitative research require credibility, consistency, transferability, and trustworthiness of qualitative research.
Credibility: In qualitative research, credibility is almost like quantitative research in that collected data requires a researcher to interpret the research findings. It speaks to the credibility of the research participants as well as the accuracy with which the researcher can interpret data from research participants. The credibility of studies is determined by the ability to triangulate data or what is considered cross-tabulation in quantitative research. Reflexivity is a concept considered to assist the credibility of qualitative research in allowing the researcher to reflect on their biases, and to determine how these biases could have an impact on the study outcomes (Fletcher-Brown, 2020:109-110).

Consistency: Also known as dependability, consistency of qualitative data is the level that another reader can keep track of processes followed in the study. Statistical programmes used to analyse data assist in keeping audit trails of procedures followed in qualitative data analysis, similar to data presentation through quantitative analysis tools (Brown et al., 2015:830).

Transferability: Equated to external reliability with quantitative research, transferability relates to factors influencing whether or not research results could be used to help understand other situations (Wilson-Strydom, 2012:132). It also speaks to the reliability of the tools in yielding similar results in repeated trials by different participants (Delİce, 2010:5). The concept of generalisability is not the main goal in qualitative research. Rich definitions of study aspects like the context, allow for knowledge sharing, which could be applicable or relevant for other contexts.

Trustworthiness: As qualitative research is conducted through interviews, data is transcribed and cleaned for analysis. The trustworthiness of survey data must be confirmed through verification of the interviews. In this way, trustworthiness is confirmed after data has been transcribed and is another way of treating recordings as part of the data, which can be cross-referenced against the transcribed data.

4.12 Challenges and limitations with data collection

Discussion on the study sample, sampling procedure and data collection processes outlined the procedures that were to be followed for the study and highlighted challenges that arose due to Covid-19 and subsequent lockdowns, leading to issues of direct access to study participants. Since the first lockdown in South Africa started on 31 March 2019, when the approach was to limit the spread of the pandemic, until May 2022 institutions of higher learning in South Africa linked lockdowns to the Covid-19 pandemic. The country moved from lockdown at different Covid-19 levels because of anticipated waves. As a result, universities adopted various learning and teaching models or hybrid models, with some institutions returning to face-to-face tuition on a phase approach, while others allowed students to return to residences and hybrid classes. Other institutions remained completely remote, an approach responding to individual institutional mandates on controlling spread of the virus. UoTs' ethics approvals became even more stringent with online surveys when the POPI ACT was amended as access to students' records was not permitted by the ethics forums of UoTs when applications for data collection were submitted.

The study was, therefore, conducted purely online as remote learning was applied at most of the UoTs involved in the study. The challenge of only being able to conduct data collection

online was compounded by the fact that the researcher did not have direct access to study participants. Invitations to participate in the survey were sent via colleagues in the participating UoTs which, probably, influenced motivation levels to participate. Receipt of reminder e-mails for participation could not be guaranteed and could impact response rates.

As the data collection method for the study was online, one of the other challenging aspects with requirements for online learning is access to uninterrupted electricity supply. Load-shedding in South Africa is an electricity load-rationing or management system implemented to avoid a complete blackout in the country. The national electricity supply agency, Eskom, as well as municipalities, implement and publish load-rationing schedules (Polokwane Local Municipality, n.d.:1-2). Challenges for certain areas, mostly rural, is that some municipalities implement longer load reduction schedules, outside of the general Eskom schedule, leaving communities without electricity supply for longer periods. For research projects relying on online participation, and for hybrid model teaching, this becomes a major challenge when participants and students cannot prepare effectively in the absence of properly managed load reduction schedules in their areas.

4.13 Ethical considerations

The basis of all ethical decision-making is the principle of respect for others; responsibility and the need to be accountable; integrity with high standards of honesty and fairness; competence in the task to be completed, and concern towards the needs of others. Ethical clearance from the participating UoTs – the HoDs and research ethics committees – was received in the form of ethics approval letters from the committees that were approached to obtain ethics approval.

Ethical clearance was sought and obtained from the Ethics Committee of the Faculty of Business and Management Sciences at CPUT (see Appendix A: CPUT ethics approval certificate) and approval for data collection from Tourism Department HoDs at each identified participating UoT institution (see Appendix B: Ethics letters from participating UoTs). The POPI Act was also taken into consideration. A contact lecturer was requested at each participating UoT to assist with data collection. Contact lecturers, who were academics in their respective institutions, were requested to circulate invitations with survey links to participating students on their respective LMS platforms.

Informed consent was obtained from participants by ensuring that before students participated in the survey, they received an invitation to participate, which indicated that participation would be voluntary and anonymous. Added to the informed invitations to participate, the actual survey

had an introductory statement indicating voluntary participation that students are free to withdraw from participation in the study and were not forced to participate.

The introductory statements included an explanation of the voluntary participation in the study, and that students' details would be kept confidential. Direct communication between the students and the researcher was not permitted. For each participating UoT tourism department, a coordinator academic was appointed, to facilitate sharing of the survey link on an invitation slide to students in the department. UoTs participated in different ways: HODs in participating universities appointed individual lecturers to assist with the logistics of communicating the research information to students or the HoD invited all department staff members to assist with sharing the survey link with students.

Confidentiality, anonymity and data protection were ensured by, firstly, ensuring that students did not provide their names or home addresses on the survey instrument. The only identifiers were student numbers to enable use this information in cleaning data before analysis. A Lime survey in this regard worked well as it allowed each participant to register with unique log-in details. This allowed participants to complete the survey at different sessions/sittings should the need to take a break from the survey arose. This process improved the limitation of duplication of surveys. If a participant started and did not complete the survey in one sitting, the platform allowed for completed sections to be saved and the participant could complete the survey at a convenient time. To respond to the questionnaire, participants used their unique log-in details and their saved survey would be available to complete.

4.14 Summary

This chapter outlined the research philosophy and paradigm. Research sites, study samples and sampling procedures were also comprehensively outlined. Design of the research tools and issues of quality and ethical considerations were discussed. To present the research results, a segregated approach to presenting the collected data was used. Chapter Five presents the quantitative survey results, while qualitative results are presented in Chapter Six, where the discussion integrates the results to bring out conclusions based on the findings of the study.

CHAPTER 5

STUDENT SURVEY: QUANTITATIVE DATA ANALYSIS AND DISCUSSION

5.1 Introduction

The research design and methodology were outlined in Chapter 4. The chapter also outlined the study sites and sample population, data collection and analysis procedures, as well as research ethical considerations. This chapter presents, analyses and discusses quantitative survey data of the online study. The purpose of this explanatory study was to assess the learning preferences of Tourism Management students, by evaluating the students' learning preferences, forms of engagement, students' perceptions of their learning environments and considering the impacts of Covid-19 on students' learning. In the process of approaching a programme design, departments must pay attention to the directions provided by research that offer insights into students' learning preferences and experiences to be able to close the gaps that exist between delivery and experience of learning.

5.2 Research objectives

The objectives of this study were to:
- Investigate students' learning preferences in tourism programmes at the selected UoTs in South Africa.
- Evaluate current forms of student engagement in tourism programmes at the selected UoTs in South Africa.
- Assess students' perceptions of learning environments of the selected UoT Tourism Management programmes in South Africa.
- Establish the profile of Tourism Management students at the selected UoTs in South Africa.
- Consider the impact of Covid-19 on students' learning.

5.3 Data administration and analysis

Study data was collected via an online platform Lime survey. The invitation to participate in the study, with the survey link, was shared with identified and willing colleagues at participating UoTs. These colleagues communicated the link and invitation to students via the respective UoTs learner management systems. The data collection process was conducted between 29 March 2022 and 30 May 2022. As indicated in Section 4.6 in Chapter 4, four institutions initially agreed to participate in the study. Representation of participants indicated one (0.38%) response was received from DUT. However, the majority of responses *N*=137 (52%) were from

CPUT, followed by TUT with N=79 (30%) responses and CUT with N=44 (17%) responses. For all practical purposes, the data from the one respondent from DUT, when making comparisons with the other UoTs, was ignored. Relative to the total picture, that individual's data had an insignificantly small effect on the outcome, based on total responses. DUT had experienced total disruptions due to multiple events such as student unrests in early 2022 and flooding later in 2022.

Following data validation, internal consistency and reliability were tested through composite measures, using the Cronbach Alpha. Data were checked for inconsistency and inadmissible values before being standardised into common data sets to ensure data accuracy. Trends of 'missing values' in survey data mean missing responses from an individual respondent at a UoT of certain data. It was critical to conduct a missing value analysis to determine if the missing values were missing at random or based on certain or repeating variables. This was done to ensure that the issue of missing values did not impact data negatively and to ensure reliability of the data. In some cases, classes of data were combined to get reasonable and workable numbers of observations per cell, usually one would like to have, at least, 10 per cell, otherwise the significance tests become unreliable.

The process of ensuring validity and reliability of data was necessary after observing data that indicated participant attrition during the study, which was 46% towards the latter parts of the online survey (Barry, 2005:267). Challenges with low participation response rates and participant attrition were expected for reasons provided in Chapter 4 (Section 4.6) with data collection. Following the advice of Ward et al. (2017:427), mechanisms that were put in place including checking missing data and assessing response carelessness throughout the survey results were conducted to mitigate issues of response error that could impact the study negatively. Following this process, the next step was to conduct Pearson Chi-squares tests on the data to test for independence and homogeneity. The results of the p-values at the 5% significance level were presented to indicate moderate evidence of the tests, but for significance only p <0.01 results were considered for reporting.

5.4 Presentation and interpretation of results

The structure of the data analysis is designed according to the objectives of the study, although the order of presentation of the data varies. The first section (Section A) presents data on students' profile information. The second section (Section B) follows with data on students' learning preferences as well as preferences based on learning styles. Data on students' academic participation is presented in the third section (Section C), followed by the fourth section (Section D), which discusses students' perceptions of the learning environment. The

fifth and final section (Section E) of this chapter presents students' feedback on the impacts of Covid-19 on learning.

5.4.1 SECTION A: PARTICIPANT PROFILES

Descriptive statistics were used to present data for Section A. Frequency counts, bar charts and pie diagrams are used to assist in presenting the data.

5.4.1.1 UoT responses

Data on UoT responses is linked to study objective 4, regarding tourism students' profiles. Table 5.1 summarises responses from participating UoTs. The results on levels of study of participants indicated a CPUT representation of 31% first-year students, 29% extended programme students, 18% second, and 18% third-year students, respectively, with 4% at fourth-year or Advanced Diploma. Most responses from TUT were 51% from third-year students, followed by first-year students (27%), 13% at second-year level, and 10% were fourth-year students. There were no responses from extended programme students in the TUT data. The results from CUT indicated a majority of first-year students' responses at 41%, followed by third-years 30% and 27% of second-year students, with one (2%) ECP response. CUT data did not provide any advanced diploma feedback. The split across levels with feedback was satisfactory as it provided well-balanced data across all levels of study.

Table 5.1: Universities of Technology and levels of study

	ECP - Year 1	1st Year	2nd Year	3rd Year	4th Year	Total
DUT	0%	0%	0%	100%	0%	100%
CPUT	29%	31%	18%	18%	4%	100%
CUT	2%	41%	27%	30%	0%	100%
TUT	0%	27%	13%	51%	10%	100%
Frequency	41	82	46	79	13	261
Total	16%	31%	18%	30%	5%	100%

5.4.1.2 Gender and age distribution

The gender distribution of participants indicated a large difference in the number of participants, with 186 (71%) female and 75 (29%) male participants (Figure 5.1). The responses could not be controlled as participants were approached by the managing lecturers at each UoT, Consequently, gender cannot be viewed as representative at all UoTs.
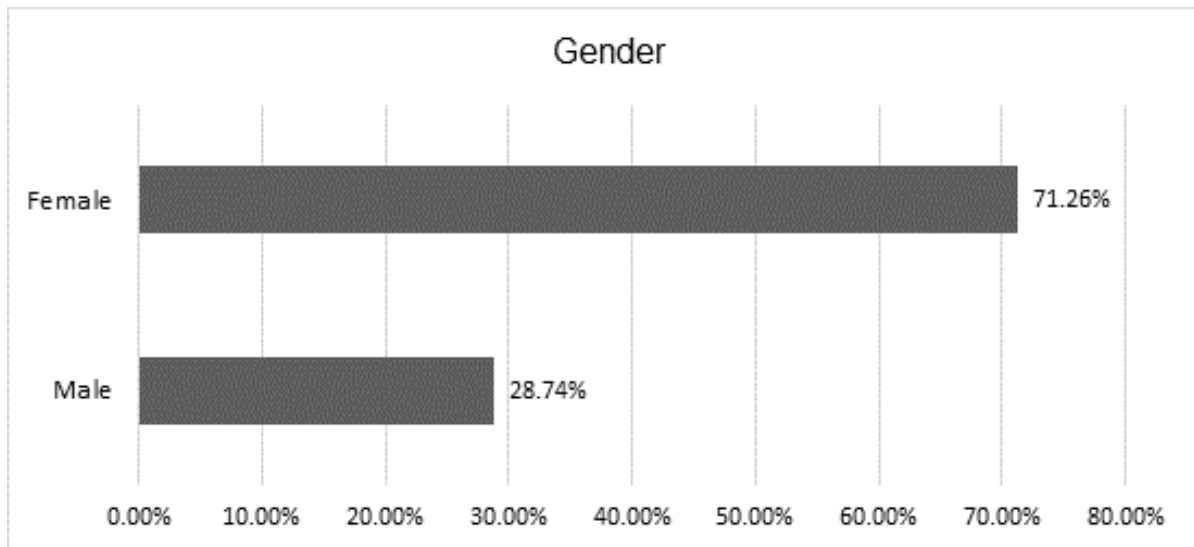
Figure 5.1: Gender distribution

Data on age distribution, as presented in Table 5.2, was collected by categories. The category 21 to 25 years was the majority with 138 (53%) responses, followed by 18 to 20 year-group with 95 (37%) participants. The 26 to 30 group had only 21 (8%) respondents, while <18 and >30 categories had 3 (1%) participants each. These responses are probably represented on all university registrations in South Africa but cannot be deemed representative of all Tourism Management students at all UoTs. Studies previously conducted at UoTs in South Africa had also presented data that consisted of higher percentages of female participants compared to male participants. A study by Aheto and Cronje (2018:99) that investigated digital ownership of students at selected UoTs recorded 73% female respondents versus 23.5% male participants. Another UoT study by Mshayisa (2022:7) included 24% male and 76% female responses. Studies previously conducted at UoTs in South Africa had also presented data that was had higher percentages of female participants compared to male participants, with the majority of participants between 20 and 23 years of age.

Table 5.2: Age distribution

Age category	Frequency	Percentage
< 18	3	1%
18 – 20	95	37%
21 – 25	138	53%
26 – 30	21	8%
> 30	3	1%

5.4.1.3 Accommodation and living arrangements

This discussion aims to respond to study objective three on students' perceptions of their learning environment. The online survey included quotations on provinces students resided while studying and the living arrangements of students. As the study was conducted at the height of the Covid-19 pandemic, the assumption with remote learning was that students did not need to reside close to where they were studying and can study from home. This section attempts to test this assumption.

5.4.1.3.1 University of study vs province of study during remote learning

Objectives three and four focused on understanding students' preferred learning environment as well as students' profiles. Two hundred and eighty-one (N-281) total usable responses regarding provinces students resided while studying were received, of which 150 (53.4%) indicated they were not residing in their home provinces while studying (Table 5.3).

Table 5.3: Province of study vs home province (N=281)

	Cases					
	Included		Excluded		Total	
	N	Percentage	N	Percentage	N	Percentage
The province you live in while you study is your home province (where you are originally from) NO *	150	53.4%	131	46.6%	281	100.0%

Interestingly, 150 (53.4%) of students residing in their province of study which was not their home province indicated they prefer living close to their university (Table 5.3).

Table 5.4 indicates the trend of attrition throughout the survey, which found that some students (N=20) only attempted the first few questions of the survey and opted not to continue with the rest of the questionnaire. As a result, the study considered the N=261 valid surveys responses out of the initial 281 received. The 20 incomplete surveys were removed from sampled data. Another reason that prompted the removal of the 20 surveys from the total sampled data was fear of repeat responses. Should some of the 20 respondents have started a new survey and not continued with the survey link, the Lime Survey platform would have automatically created it for them to continue taking the survey. To further assess these trends on study vs home province of Tourism Management students, N=261 responses were considered valid for analysis on the issue of which province students resided while studying (Figure 5.2).
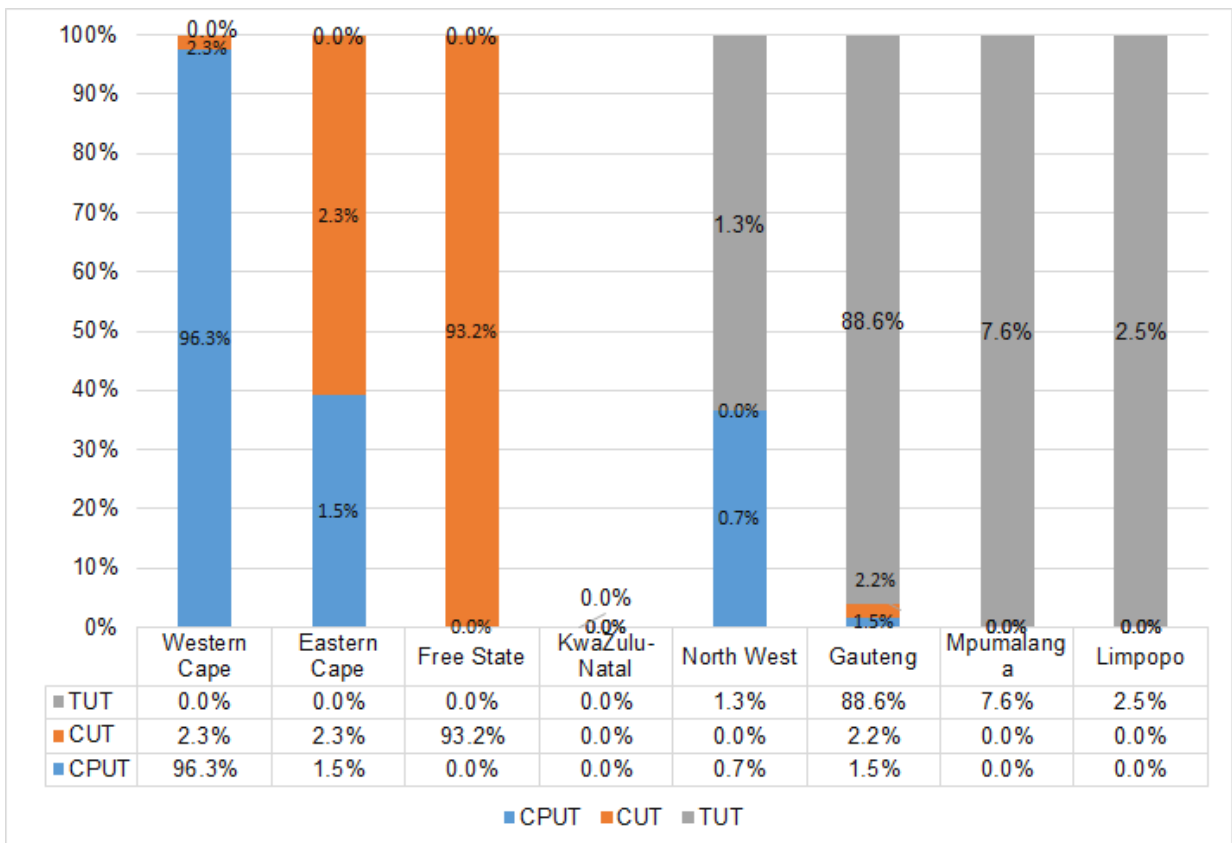
Figure 5.2: Province residing while studying (N=261)

	Western Cape	Eastern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Mpumalanga	Limpopo
■TUT	0.0%	0.0%	0.0%	0.0%	1.3%	88.6%	7.6%	2.5%
■CUT	2.3%	2.3%	93.2%	0.0%	0.0%	2.2%	0.0%	0.0%
■CPUT	96.3%	1.5%	0.0%	0.0%	0.7%	1.5%	0.0%	0.0%

■CPUT ■CUT ■TUT

CPUT is located in the Western Cape Province and 96.3% of all participants registered as CPUT students reside in the Western Cape, while 93.2% of CUT students reside in the Free State (the university is located in Bloemfontein). Similarly, TUT (established in Tshwane) has 88.6% of the surveyed students living close to the institution in the Gauteng Province (Figure 5.2). To illuminate issues on requirements and preferences of Tourism Management students with regard to their learning environment, it is critical to understand the profiles of the students (study objective four) as far as designing future blended/hybrid learning tourism programmes is concerned. Studies usually focus on design (Hapuarachchi, 2017:462), in-class (Le Roux & Nagel, 2018:2) or online (Tseng & Walsh, 2016:11) aspects of blended/hybrid learning and rarely touch on issues outside of these spheres that have an impact on blended/hybrid learning such as students' learning environment (Clayton et al., 2018:176-177). The latter, linked to study objective three, has to do with consideration of students' support for blended/hybrid learning discussed in Chapter 3, Section 3.6.1.2., for learning environments on- and off-campus.

Of the N=150 participants who indicated that their province of study is not their home province, and that they reside in their province of study, 97 (65%) live in a university residence. This is followed by 24 (16%) who live with a roommate in private accommodation. As the study

included advanced diploma students, it was found that one (<1%) participant was married and living with a partner (Table 5.4).

Further analysis of the data on this aspect indicated anomalies in some of the participants' responses (Table 5.4), which are critical to point out for the validity of interpreted results. On the questions whether students 'stay in a communal flat/house/or accommodation' and whether students 'stay in a university residence', one (<1%) student per case indicated this option, but stated 'staying with parents'. Another observation was with the question whether students 'live in a shack' where five (<3%) indicated living with their parents. This could be an indication that the participants did not understand the difference between a 'home province' and a 'study province', which could result in skewed data for these cases. Although these anomalies were identified, they were not significant enough to affect the overall counts. The questionnaire included an open-ended question for participants who wanted to select 'Other' as an option that was not specified in the list of options provided. The one (<1%) student who chose the 'Other' option specified living on "*work premises in Limpopo*".

Table 5.4: Type of accommodation and living arrangements (N=150)

What type of accommodation do you stay in while studying?		N	%
I stay in university residence	I live alone	23	15%
	I live with my parents	1	<1%
	I live with my roommate	72	48%
	I live with my friend	1	<1%
	Total	97	65%
I stay in private accommodation	I live alone	5	3%
	I live with my husband/wife	1	<1%
	I live with my roommate	16	11%
	I live with my friend	1	<1%
	Other	1	<1%
	Total	24	16%
I stay in a communal flat/house/accommodation	I live alone	2	1+%
	I live with my parents	1	<1%
	I live with my aunt/uncle	1	<1%
	I live with my roommate	4	<3%
	I live with my friend	1	<1%
	Total	9	6%
I stay in a shack	I live alone	3	2%
	I live with my parents	5	3%
	I live with my aunt/uncle	3	2%
	Other	1	<1%
	Total	12	8%
I am renting a room	I live alone	3	2%
	I live with my partner	2	1%
	I live with my friend	1	<1%

	Total	6	4%
Other	I live with my parents	1	<1%
	Other	1	<1%
	Total	2	<1%
Total	I live alone	36	24%
	I live with my parents	8	5%
	I live with my aunt/uncle	4	3%
	I live with my partner	2	1%
	I live with my husband/wife	1	<1%
	I live with my roommate	92	61%
	I live with my friend	4	3%
	Other	3	2%
	Total	**150**	**100%**

5.4.1.3.2 Family responsibilities

As part of study objective four, in understating the profile of Tourism Management students, the question of whether participants had children elicited responses from N=53 participants (18.9%) (Table 5.5). To assess the level of support for students with dependants in terms of living arrangements while studying, a cross-tabulation of data was required and conducted. The first set of results are of N=18 participants who indicated that their children live with them in the same household as follows:

- For each of the following cases, one response (5.6%) each was recorded; living alone with the child; with a roommate, with an uncle or aunt, or with the husband or wife.
- 11 (61.1%) of the participants live with their parents.
- 3 (16.7%) indicated 'Other' option, but the relationships of people the students live with were not defined.

The results suggest some support system the students have while studying and living with their children. Studying remotely, students with dependants might be asked to have more responsibility with the child, thus negatively impacting their time for studies. At the other end of the spectrum of this question was analysis of students who responded NO to the question of students who have dependents and living with the dependants in the same household. (Table 5.5). Thirty-five (35) respondents (66%) of the sample of N=53 respondents indicated having children, but did not live with the children in the same household.

Table 5.5: Living arrangements for students with children (N=53)

	Yes				No					
	If yes, does your child live with you?	%	% with who do you live with while studying?	% of Total	If yes, does your child live with you?	%	% with who do you live with while studying?	% of Total	Count	% If yes, does your child live with you?
I live alone	1	5.6%	8.3%	1.9%	11	31.4%	91.7%	20.8%	12	22.6%
I live with my parents	11	61.1%	100.0%	20.8%	0	0.0%	0.0%	0.0%	11	20.8%
I live with my aunt/uncle	1	5.6%	50.0%	1.9%	1	2.9%	50.0%	1.9%	2	3.8%
I live with my partner	0	0.0%	0.0%	0.0%	2	5.7%	100.0%	3.8%	2	3.8%
I live with my husband/wife	1	5.6%	100.0%	1.9%	0	0.0%	0.0%	0.0%	1	1.9%
I live with my roommate	1	5.6%	5.9%	1.9%	16	45.7%	94.1%	30.2%	17	32.1%
I live with my friend	0	0.0%	0.0%	0.0%	3	8.6%	100.0%	5.7%	3	5.7%
Other	3	16.7%	60.0%	5.7%	2	5.7%	40.0%	3.8%	5	9.4%
Total	**18**	**100.0%**	**34.0%**	**34.0%**	**35**	**100.0%**	**66.0%**	**66.0%**	**53**	**100.0%**

5.4.1.4 Access to learning and employment status

The learning environment also includes issues of widening access which, for students in HE, is a complex one as internal and external factors are an integral part of university systems. This has been a policy-driven mandate of HE in South Africa to help widen access (Council on Higher Education, 2010:6; Mzangwa, 2019:8-9). Traditionally, learning in South African HE is based on face-to-face contact class models (ReadLab, 2022:29). Section 5.4.3 presents data that assessed issues of access such as financial support and access to academic programmes for Tourism Management students.

5.4.1.4.1 Mode of transport and time travelled for face-to-face classes

In the South African context of the traditional face-to-face class design approach in HE, challenges with travel to and from campus have been identified as one of the impact factors for low class attendance (Schmulian & Coetzee, 2011:179; Wilson-Strydom, 2012:159). The following data analysis indicates modes of transport for students to a face-to-face class. This

question was answered by N=261 survey participants. The most important result sought from this enquiry (Table 5.6) was to assess how students who do not live in residence travel to campus. Even though students live at university residences, not all residences are near university campuses as 86 (33.0%) of students use university shuttles and 84 (32.2%) lived close enough to walk to campus. The question was posed to determine if students use a public mode of transport and if it is a combination or single mode, as this indicates the distance from campus and could potentially increase travel times.

Table 5.6 shows that 73 (28.0%) use a bus, taxi, or train to travel to campus, while 5 (1.9%) use a combination of travel modes to campus. With the 5 (1.9%) participants who indicated 'Other' in the survey, open-ended responses for clarity on this question indicated that some students, due to not having travelled to university as they attended online classes, were not aware of how they would travel to university. One respondent indicated that he/she lived at the place of work and, thus, would not be able to travel to the university due to distance. As elaborated in Section 5.4.1.3.1, the total response to some of the profile questions in the survey had 281 accounted surveys, with 20 missing information in some of the questions. Analysis was conducted on only the valid responses from 261 surveys.

Table 5.6: Mode of travel to campus

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	I have my own vehicle	4	1.4	1.5	1.5
	I have a regular lift	2	0.7	0.8	2.3
	I use university shuttle/buses	86	30.6	33.0	35.2
	I use public transport (taxi/metro-rail/local buses)	73	26.0	28.0	63.2
	I live close to campus so I walk	84	29.9	32.2	95.4
	I use e-hailing services (Uber, DIDI, Bolt, and others.)	2	0.7	0.8	96.2
	I use combined transport systems (for example, a train and a bus)	5	1.8	1.9	98.1
	Other	5	1.8	1.9	100.0
	Total	**261**	**92.9**	**100.0**	
Missing	System	20	7.1		
Total		**281**	**100.0**		

Regarding travel time to campus (Figure 5.3), 5.36% of students responded that they needed to travel between an hour and a half to two hours to campus, a situation of concern. Six (6.13%) of students travelled between an hour to an hour and thirty minutes to campus. Figure 5.3 indicates that a large cohort of students travelled under fifteen minutes to campus (36.02%), which correlates to the responses of students who live in campus residences. This is in line

with a study by Kirby-Hawkins (2018:4), which assessed motivational factors on class attendance.
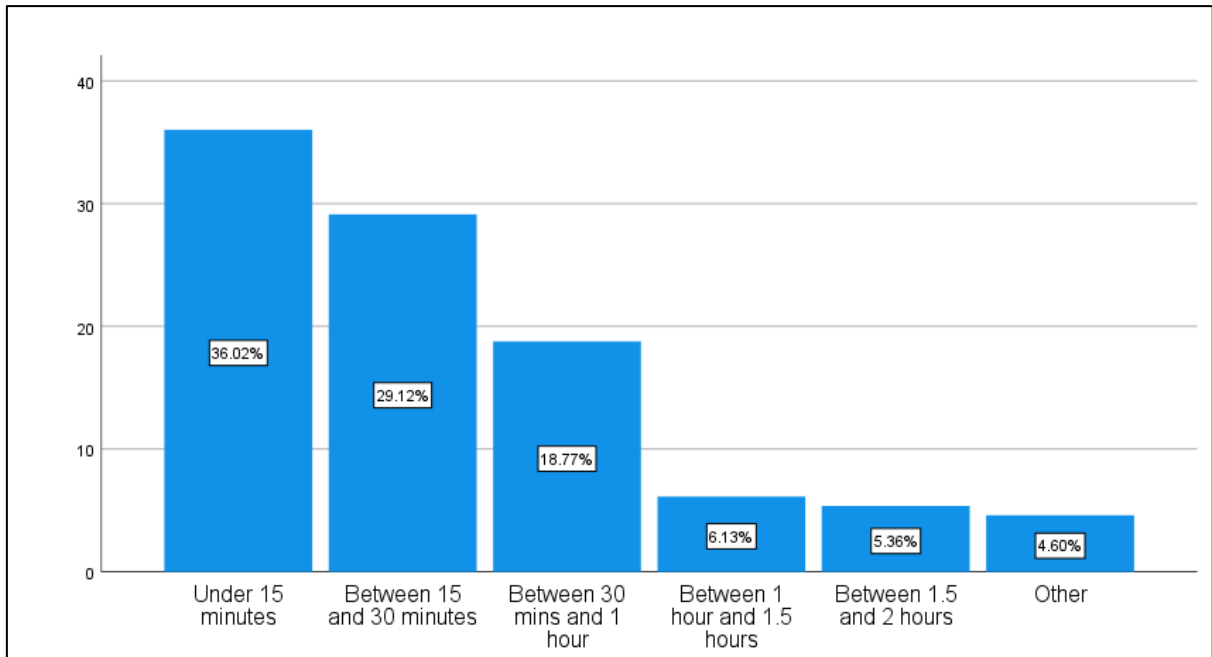
Figure 5.3: Travel time to campus

5.4.1.4.2 Financial study support (N=260)

Similar to the 2020 DHET study (DHET, SA, 2020:15) on access to learning, where the majority of students were funded by NSFAS (almost 70%), followed by those whose parents paid for their tuition (29%), followed by those who cover their own tuition (3.4%), this study exhibited similar results. Figure 5.4 shows that the main source of funding for students at UoTs in South Africa is a NSFAS bursary (84.7%), which is a government HE funding grant. This outcome is almost 15% higher than the total of the DHET study, which included traditional universities as well. Students whose tuition is paid by their parents (6.5%) and those who pay for their studies were recorded at 3.4%. The results presented indicate that HE financial support strategies are in line with policies for widening access to HE. The results further point to a glaring lack of financial support from private donors and sponsors for UoT students, where responses in both cases were 0.8%. Tjønneland (2017:2) indicates a need for further assessment of funding models for HE outside of the existing NSFAS funding which, although offers substantive support, still does not offer full support to all economically disadvantaged students.
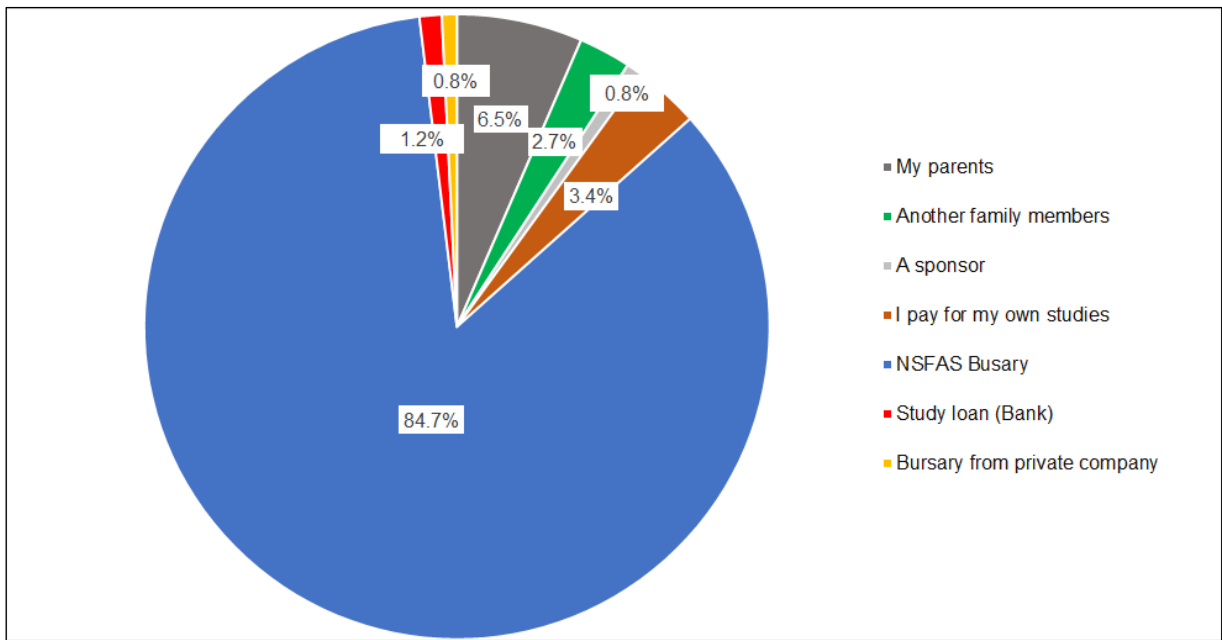
Figure 5.4: Forms of payment for studies

The question of appropriate use of NSFAS funding by HE students to access learning materials has been brought up (DHET, SA, 2020b:iii,15). In this study another question that focused on access students have to learning was the use of NSFAS funding. Figure 5.4 indicates that 84.7% of Tourism Management students receive NSFAS funding. To further determine if students used the funding received to buy study materials, a cross-tabulation of the variables "who pays for your studies" and "do you have all" or "some of your subject textbook" revealed data from N=153 responses solicited (Table 5.7). Students had the option to answer "yes" or "no" to both questions regarding ownership of books. The significant results is positive evidence that of 128 (84%) NSFAS-funded students, 50% indicated they had some prescribed books and 18% of the participants had all prescribed books (Table 5.7). The DHET survey report on the use of learning materials in HE in South Africa (DHET, SA, 2020b:14-20) yielded similar results that showed a relatively high intended use of NSFAS funds. In this study, students who indicated they did not purchase any prescribed books required, mentioned affordability, perception of inadequate use of the prescribed book (by the lecturer), and availability of copies of the book in the library. Although not a primary objective of this study, further probing with open-ended questions to this particular enquiry revealed that N=63, that is, 41% of the number who responded to the question (N=153) did not purchase any prescribed books for the prescribed subjects. Narratives could yield benefits into the reasons tourism students were not able (or unwilling) to purchase prescribed materials.

Sampled students who received funding from private donors (1%) did not have prescribed books, while only N=6 (4%) of the sampled students who pay their own fees were able (or willing) to purchase prescribed books. This could be an indication that course tuition is

considered critical and purchasing of books as optional when funding models are designed either by parents, donors, or students.

Table 5.7: Funding and purchasing of prescribed books

	My parents	%	Another family member	%	A sponsor	%	I pay for my studies	%	NSFAS Bursary	%	Study loan (bank)	%	Bursary from private company	%	Total	
[Do you have all of your prescribed textbooks for some of your subjects?]																
Yes	2	1%	1	1%	0	0%	1	1%	27	18%	0	0%	1	1%	32	21%
No	6	4%	4	3%	1	1%	5	3%	101	66%	3	2%	1	1%	121	79%
Total	**8**	**5%**	**5**	**3%**	**1**	**1%**	**6**	**4%**	**128**	**84%**	**3**	**2%**	**2**	**1%**	**153**	**100%**
[Do you have some of your prescribed textbooks for some of your subjects?]																
Yes	3	2%	4	3%	1	1%	4	3%	76	50%	1	1%	1	1%	90	59%
No	5	3%	1	1%	0	0%	2	1%	52	34%	2	1%	1	1%	63	41%
Total	**8**	**5%**	**5**	**3%**	**1**	**1%**	**6**	**4%**	**128**	**84%**	**3**	**2%**	**2**	**1%**	**153**	**100%**

5.4.1.4.3 Employment status

Financial means and responsibility to support a family are some of the issues that have an impact on students' academic performance and success (McGhie, 2012:182). A question was posed in the survey regarding students' employment status while studying (Table 5.8). Data cross-tabulation was conducted to assess the relationship between students' employment status and level of study. Considering that issues of economic hardships had been identified during the COVID-pandemic period, (Hedding et al., 2020:1; Naidoo & Cartwright, 20203-4; Twesige et al., 2021:152), of the N=261 responses to this question, N=89 students were still looking for a job while studying with a high percentage of the students (44.9%) in their 3rd year of study. N=12 students had part-time jobs, with most of them (33.3%) registered for their 2nd year of study. Of the six students who indicated they had full-time employment, four (66.7%) were registered for their 4th year of study, while one each (16.7%) were registered for the 2nd and 3rd years of study, respectively. The question on employment status was posed to assist with answers to study objective five on the impacts of Covid-19 on students' learning. The goal was to determine if there were shifts in students' focus on employment, because of a shift to online study due to lockdowns.

An open-ended question asked students if they had had responsibilities towards family, relating to siblings. One student indicated financially assisting the household (*"I help my parents financially in other stuff at home"*), while another indicated using NSFAS funding to care for family ("*I make sure they have food and money to carry at school with my nsfas* [sic] *money*"). Although NSFAS funding is a large component of students' fees support, there is evidence that UoT students seek employment opportunities outside of the cooperative education experience, not for work experience, but mainly for financial relief and also to support families (Council on Higher Education, 2010:9). N=152 students indicated they did not work, but focused on their studies only.

Table 5.8: Study and employment status

What is your current year of study? * What is your current work status while studying? Crosstabulation	I have a part-time job	I have a full-time job	I am looking for a job	I work on weekends and on shifts	I only focus on my studies	Total
ECP - Year 1	25.0%	0.0%	14.6%	50.0%	15.8%	15.7%
1st Year	8.3%	0.0%	23.6%	50.0%	38.8%	31.4%
2nd Year	33.3%	16.7%	10.1%	0.0%	21.1%	17.6%
3rd Year	25.0%	16.7%	44.9%	0.0%	23.0%	30.3%
4th Year	8.3%	66.7%	6.7%	0.0%	1.3%	5.0%
Count	**12**	**6**	**89**	**2**	**152**	**261**

An important issue that was included in Section A discussion was to assess the study choices of tourism qualification students as a compound to the success of courses at UoTs. To ensure the success of students in tourism programmes, fit-for-purpose enquiries need to be conducted (Figure 5.5). The Tourism Management course is built on a highly complicated curriculum (Van Zyl, 2017:19). Data in Figure 5.5 show an average of 7% per year level-students did not choose Tourism Management as a first-option course. A surprising observation from the data was also the number of postgraduate students who chose the tourism qualification as a second-choice qualification, but still opted to return for a postgraduate qualification (2.30%) (Figure 5.5).

The open-ended question to this enquiry paints a picture indicating that most students who had opted for Tourism as a second-choice qualification indicated "*Education/B-Ed/Teaching*" (N=36) as first-choice options. The second most mentioned qualifications were *"nursing"*, or *"clinical sciences"* (N=4). Several Humanities studies (N=2) students indicated *"LLB"* or *"paralegal studies"*, and (N=1) *"Policing"*. Business studies qualifications such as *"accounting"*, *"human resources"* and *"public relations management"* were mentioned. Surprisingly, only two students had chosen hospitality-related qualifications as their first choice, which could bring the prospect students do not see service-industry qualifications as feeding into each other.
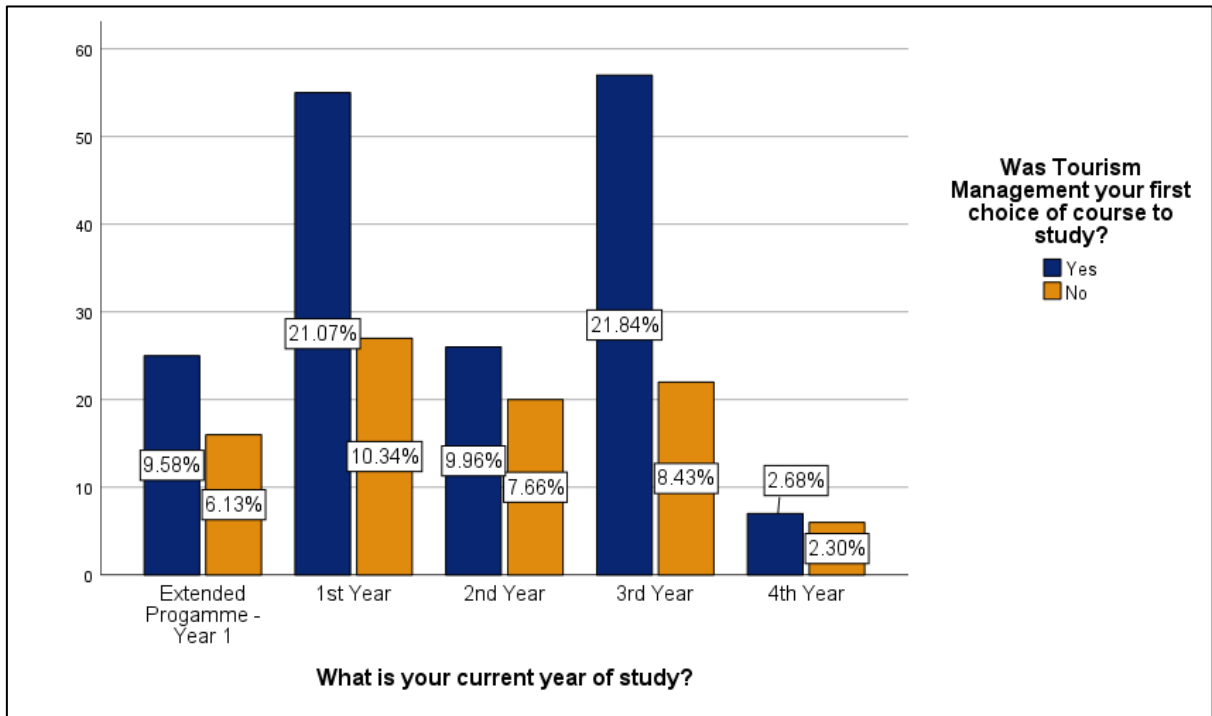
Figure 5.5: First choice qualifications (N=261)

The results for Section A lean towards a preference by Tourism Management students to stay close to their campuses of study while studying remotely. The data on gender parity of Tourism students at the participating UoTs could be further investigated although a "students' voices" study report by Cengage (EMAEA, 2020:10) that assessed the impacts of Covid-19 in the UK, Europe and South Africa recorded 60% female and 38% male respondents with 2% non-binary (EMAEA, 2020:10) considered in the survey. Due to limitations with sampling and data collection for this study, no concrete conclusions could be drawn on these results. Similarly, with the DHET report on students' access, results relating to the profile of students at UoTs showed majority of black students received funding assistance to enable them study (DHET, SA, 2020b:14-15). Even with the concept of a requirement for financial assistance, there was limited evidence of these students needing employment while studying (Table 5.8) to lessen their financial burden.

5.4.2 SECTION B: STUDENTS' LEARNING PREFERENCES

Adapting teaching to students' preferences could be a "hit-and-miss" that could affect students' performance (Graf et al., 2006:235; Kim et al. 2018:901). Based on this argument, this section attempts to offer answers for study objective one, which focused on students' learning preferences and could also assist in providing a clearer profile of Tourism students (study objective four). For this discussion, the study included in the research tools elements from the VARK model – (visual/auditory/read & write/kinaesthetic), and Kolb's learning process theory

in specific sections of the research data discussions in Section B. The initial discussion in Section 5.4.2.1 integrates VARK model elements to assess students' preferred learning styles. The questions sought to ascertain if students preferred to learn from class notes and presentations, reading from books and other sources as a form of learning or reading their writing own notes.

This section follows the Kolb model, which is often used in research on learning styles where technology integration is involved (Graf et al., 2006:236; Zacharis, 2011:796). It was considered the best-suited tool to assess students' learning preferences in remote learning environments. Elements used within Kolb's learning style inventory (KLSI) adapted and summarised by Seger and Van der Haar (2011:57) include divergers, assimilators and accommodators, as defined earlier in Chapter 3, Section 3.3.2 and later in Chapter 5, Section 5.4.2.5 and Chapter 6, Section 6.5.3.1.

Other elements assessed students' preferences in actively completing tasks such as self-study questions and whether students preferred discussion sessions as learning tools (Mlambo, 2011:82; Prithishkumar & Michael, 2014:184). The questions discussed in the section comprise closed-ended questions on a five-point-Likert scale, which assessed 35 items on students' learning preferences and multiple-choice, open-ended 'opinion' questions. Likert scales data was compared with other variables such as gender, university of study and level of study to determine any relationships in terms of preference for learning style.

5.4.2.1 Students' learning style preferences

To provide data for study objective two, pertaining to investigating students' preferred learning styles, Likert-scale and opinion questions were included in this section of the survey. The results in Table 5.9 were compared by gender but indicated no relational influences. The Chi-square value was above 0.05, ($p = {>}0.05$), indicating no correlation between students' learning preferences and gender.

The data pointed to a preference for 'read and write' learning style, with negative feedback to the auditory learning style. Most students indicated a preference for making their own notes (49.79% = agree) and (30.21% = strongly agree), while 48.09% agreed to the statement that they try to find additional information and read to improve understanding of their subjects. With regard to study groups, 48.31% of students disagreed that they study with classmates in groups, which is in line with the preference to study alone shown in Table 5.9.

Table 5.9: Students' learning style preferences

Frequency distributions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Chi-Sq.
I make my own study notes from the textbook/notes given in class (N=235)	1.7	2.98	15.32	49.79	30.21	100	.739
I keep my class notes well organised and filed (N=236)	0.42	2.12	24.58	47.46	25.42	100	.323
I regularly study in a group with classmates (N=236)	17.37	48.31	24.15	8.05	2.12	100	.508
I prefer to study alone (N=236)	2.54	8.05	14.41	33.47	41.53	100	.533
I try to find additional information and reading to improve my understanding of my subjects (235)	1.7	1.7	22.13	48.09	26.38	100	.374

An optional question with an open-ended choice was asked with reference the learning style preferences, as shown in Table 5.10. A total of N=209 responses were captured for this question. Table 5.10 shows a preference for a kinaesthetic learning style (94, N=45%), where students prefer to actively answer mock questions to learn concepts (as indicated by Mlambo, 2011:82). This learning style is closely followed by the read/write learning style, with 70 students (N=33.5%) indicating a preference for reading content to be learnt, which is in line with the preference for reading data captured shown in Table 5.9. Six "Other" responses (2.9%) indicated in the open-ended questions an orientation towards a combination of styles, and a preference for read/write learning preference, with the following statements:

"*All of the above*",

"*I tend to read from the textbook and understand in order for me to write that sentence in my own way*",

"*Everything, rewriting my notes*",

"*All of the above*",

"*All of the above relate to me*".

Students who preferred the auditory learning style numbered 39 (N=18.7%). No statements suggesting a preference for visual learning were captured in the responses.

Table 5.10: Statements of preferred learning styles

Statements		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	Reading things over and over until I have memorised them	70	26.8	33.5	33.5
	Writing things out and doing practice questions	94	36.0	45.0	78.5
	When I study it helps me to remember if I speak the words out loud	39	14.9	18.7	97.1
	Other	6	2.3	2.9	100.0
	Total	209	80.1	100.0	
Missing	System	52	19.9		
Total		261	100.0		

An assumption could be made from the data presented for a preference of the reading and writing learning style by Tourism Management students and for kinaesthetic and study alone preferences as well. Compared to other studies (for example, Mkonto, 2015) using the model to assess students' learning preferences in South Africa, the study by Mkonto (2015:217-222) of students across faculties indicated a preference for practical hands-on learning (kinaesthetic) style. A study on secondary school students conducted by Bosman and Schulze (2018:5) pointed to a hands-on active approach to learning, with students preferring to study alone than in groups. The latter study assessed performance and reported higher performance in learners who opted for the kinaesthetic and read/write learning styles.

5.4.2.2 Preferences of Tourism students regarding the use of academic support services

The articulation rates of UoT students is a Department of Higher Education imperative, which has allowed for the implementation of innovative programmes to boost students' success at UoTs (Van Zyl, 2017:19). The use of tutors in academic programmes is one of the imperatives. A review of the results in Table 5.11 on the use of academic support services indicates an interesting observation, where majority of surveyed students did not use available tutors: 26.81% of the students disagreed with the statement: 'I make use of the tutors available' and 31.91% were neutral on the matter of using tutors. This result is similar to the study by Massingham and Herrington (2006:86). Even with this analysis, students agreed that they would benefit from a tutor who spoke their home language, with 37.54% agreeing and 22.13% strongly agreeing with the sentiment. More interesting is the fact that the results suggested evidence that gender could be a factor when preference to use the services of a tutor who speaks a similar home language is concerned as the chi-square p-value was less than 0.05

(p = 0.038). Female students were more inclined to using services of tutors who spoke their home language.

A good observation was the result that students, although they did not use the services of tutors during the survey, indicated to using university services offered by the learning centre (42.55% = agree). The critical importance of academic support for university students was highlighted in Chapter 3, Section 3.6.1.2, for the academic success of students (Table 5.11).

Table 5.11: Student preferences regarding academic support services

Frequency distributions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Chi-Sq.
I translate my study notes into my home language (N=261)	15.33	30.21	24.68	19.57	10.21	100	.503
I make use of the tutors available (N=235)	11.92	26.81	31.91	20	9.36	100	.905
I would benefit from a tutor who speaks my home language N=235)	2.55	11.06	26.81	37.45	22.13	100	.038
I make use of the support services offered by the university learning centre (N=235)	3.4	14.89	28.52	42.55	10.64	100	.175

Contradictory responses are depicted in Table 5.11. Although students indicated that they would benefit from a tutor who spoke their home language, they disagreed with the statement that they would translate their notes into their home language (30.21%). A study by Tekane et al. (2020:8-9) found that preference for tutorials was based on the chance for students to "*practice, get assistance and validate*", which is a support mechanism well suited to the kinaesthetic learning preference as it involves active learning activities, as discussed in Section 5.4.2.1.

5.4.2.3 Teaching practices vs learning styles

A mismatch between teaching and learning styles has been highlighted as a major issue in academia (Felder, 1988:674; Akbarzadeh & Fatemipour, 2014:141; Widaningrum & Ho, 2015:89; Bosman & Schulze, 2018:). A study by Liang (2021:8) presented evidence that teaching style does have an impact on learning. The results presented in Figure 5.6 could indicate further confirmation of this view, as results per participating university indicated that Tourism students agree (CUT=37.5%; CPUT=43.8%; TUT=43.8%) and strongly agree

(CPUT=24.1%; TUT=35.9%; CUT=53.1%) that lecturers' teaching styles did impact their learning.
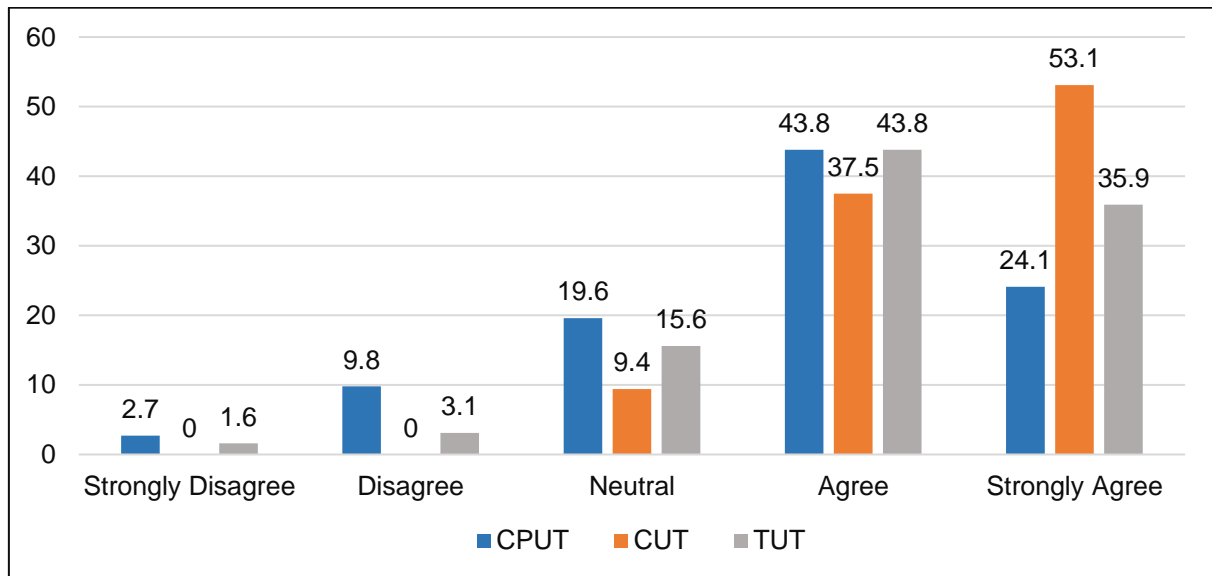
Figure 5.6: Impact of lecturer teaching style on learning

5.4.2.4 Preferences related to on-campus class attendance

Based on the indication that teaching practices do impact learning, as depicted in Figure 5.6, follow-up questions were asked about face-to-face class attendance. The first question asked (Table 5.12) focused on preference for face-to-face class attendance. The issue of lack of attendance focused on reasons (Chipchase et al., 2017:36) whereas a study by Visser and van Zyl (2016:343) suggested that race could also be a consideration. When the Tourism students in this study were asked if they attend 99% of their classes, 80% of a total of N=211 students who answered this question indicated 'Yes', with 20% indicating 'No'. This result is in line with a study by Kinlaw et al. (2012:169) who found that students do not unjustly decide not to attend classes.

In contrast, majority of the students, 80% (N=220) indicated that there are some lecturers' classes they prefer not to attend, affirming the argument that gaps between students' learning preferences and lecturers' teaching practices have a negative impact on learning (Wadesango & Machingambi, 2011:94; Deale, 2019:4-5). Other discussions on factors impacting class attendance have focused on investigations attempting to combat low attendance of face-to-face classes (Kinlaw et al., 2012:170; Karabulut-Ilgu et al., 2018:404), arguments that students' learning also evolves to preferences not restricted to university walls (Murphy et al., 2004:865). To determine a broader picture of the reasons students miss lectures, the results presented in Table 5.12 suggest that preference for class attendance on campus cannot be discounted. On feedback to a question on whether face-to-face classes were deemed 'not beneficial', 92% of

N=152 students who answered this question indicated 'No'. When asked if their reasons for non-attendance were based on 'just not feeling like going to class', 89% of the respondents (N=159) indicated 'No'. Thus, the interactive opportunities face-to-face classes students derive cannot be discounted (Mshayisa, 2022:4).

On assessment of actions students preferred to take when they missed a face-to-face class, evidence suggests more students prefer to work with their peers than to contact their lecturer directly. Of the respondents to this question, N=174, 91% asked friends for updates and notes if they missed class, while 76% (N=144) did not follow up with friends, but just attend the next class. Of the students who indicated not following up on work done if they missed a class, only 24% indicated not taking any action and just attending the following session if they missed a class, which is an indication that class preparation is critical for Tourism students. Although this is a good indication, only a few students are inclined to directly ask their lecturer for assistance if they missed a class (4%, N=161).

Assessment of results in Table 5.12 raised interesting observations. Since the start of the Covid-19 pandemic in March of 2020, and with the continued adjustment of lockdown levels as well as lifting of the National State of Disaster in South Africa since 5 April 2022 (Department of Health, SA, 2022), UoTs, have not rushed the decision to revert to full face-to-face campus classes. N=99 participants who chose the option 'not applicable', in the question of face-to-face class attendance had only attended online classes since the start of the pandemic in 2020, until the time data was collected for this study (between 29 March 2022 and 30 May 2022), and continued to attend remotely (Table 5.12). As Covid-19 was a huge disrupter around the world, it could be that South African HE institutions are already considering adapting to the design of tuition for the future.

Table 5.12: Student preferences related to face-to-face class attendance

Face-to-face class attendance	Yes	%	No	%
I attend class 90% = Yes (N=211)	169	0.80	42	0.20
There are some lecturer's classes I prefer not to attend (N=220)	177	0.80	43	0.20
Reasons for missing face-to-face class	**Yes**	**%**	**No**	**%**
Not applicable, I only attended online class (N=166)	99	0.60	67	0.40
Illness (N=166)	77	0.46	89	0.54
Other responsibilities (N=159)	49	0.31	110	0.69
I do not find class time beneficial (N=159)	13	0.08	146	0.92
I do not attend classes because I sometimes just don't feel like going to class (N=160)	17	0.11	143	0.89
I have transport problems (N=164)	38	0.23	126	0.77
Action taken when missed a face-to-face class	**Yes**	**%**	**No**	**%**
I contact the relevant lecturer to see what work I missed (N=161)	71	0.44	90	0.56
I ask a friend to update me and get notes from them (N=174)	159	0.91	15	0.09
I just attend the next classes (N=144)	35	0.24	109	0.76

5.4.2.5 Preferences related to remote learning

The debates on blended/hybrid learning in Chapter 2, Section 2.3.4.1 on considerations for adaptation of teaching practices and Section 2.3.4.2 on what these adaptations could mean for future class design, give background to the blending options for traditional and online learning programmes design. With this information in the background, and the fact that Covid-19 came as a disruptor to the HE framework, investigations into suitable blended/hybrid designs were already a developing field of practice and study (Twigg, 2003; Grabe, 2005; Watson, 2008; O'Callaghan et al., 2017; Swartz et al., 2018; Hrastinski, 2019) before the impacts of the pandemic. As a result of the pandemic, focus has shifted in research and practice. HE has moved from being a system that could gradually help improve students' academic performance to being more of a forced reflective exercise on how slow integration of technology into learning has been over time, mostly for developing countries like South Africa (Mpungose, 2020; Council on Higher Education, 2020; South Africa, 2020b; Zaluchu, 2020). This has offered HE in South Africa opportunities in future design of academic programmes to change learning habits of the 21st-century student (Mhlanga, 2021). Reflections

on student experiences from the impact of the 2020/2021 pandemic impact could afford lessons for future design of Tourism programmes.

Table 5.13 presents results of N=145 students who responded to questions on preferences of online classes relating to forms of communication and the type of online class preferred. Formal and informal platforms for learning, considered as synchronous and asynchronous (Beldarrain, 2006:140; Martin & Bolliger, 2018:208) are important aspects of "remoteness" in creating wider access to the learning environment (DHET, SA, 2020b:7). Section E on impacts of Covid-19 evaluates issues of technological access during remote learning.

Questions on online learning preferences were adopted from Kolb's learning cycle, which focuses on a quadrant of elements explained as; 'divergers' who are good at seeing things from different perspectives, and work well with people. 'Assimilators' prefer inductive reasoning and working with information and ideas. 'Convergers' have a strong practical orientation, are generally deductive in their thinking and tend to be unemotional, while 'accommodators' solve problems intuitively and like doing things with impulse (Hawk & Shah, 2007:4; Graham, 2013:18). Overall assessment was based on ranking questions by highest scores.

Results shown in Table 5.13 on the type of online classes considered best during remote learning show a preference for interaction in class and online sessions that afford students high participation. This outcome is similar to a study conducted by Mshayisa (2022:10) that indicated collaborative classes improved students' confidence. Questions were posed using a five-point Likert scale, with scores ranging from 1 = least preferred to 5 = most preferred. N/A was included as an option to accommodate students who did not have some of the options available to them. The highest scored question relating to the best online class was the class where the lecturer offered opportunities for students to participate in the online class and scored the highest (44.8% = most preferred & 44.1% preferred) class. The second highest score was for a class where the lecturer used PowerPoint visuals (46.2% = preferred & 28.3% most preferred), while the class that offered the opportunity to ask questions came in third with a score of 53.1%. Interestingly, the class where the lecturer opted to have a camera on during online lectures was scored neutral (36.6%) and less preferred at 20%, with 16.6% least preferred (Table 5.13). This was a surprising outcome and implications thereof were revisited when high preference scores for interactive learning environments and preference for face-to-face class blend are discussed in the following section (Section 5.4.2.6).

The next score summarised in Table 5.13 is forms of synchronous and asynchronous communication tools during remote learning to assess student preferences. Again, in this assessment, the overall rating was based on ranking questions by highest scores. The results shown in Table 5.13 indicate a preference for formal or synchronous forms of communication

during remote learning. Preferences for communication to be sent via the LMS scored the highest with 42.5% preferred and 30.8% strongly preferred responses. This was followed by the preference for communication to be done through the class WhatsApp group (38.4% = preferred & 17.1% = most preferred), with direct e-mail with the lecturer scoring the highest with 30.1% preferred and 19.9% most preferred responses. Interestingly, preference for information and contacting the lecturer directly on WhatsApp scored low with students, which is in line with Martin and Bolliger's (2018:216) findings and research by Saidi et al. (2021:960). This indicated that regarding formal tuition, students were inclined to lean more towards formal structures of communication such as the LMS and email from the lecturer than asynchronous platforms, where group coordinating activities are more effective (Mpungose, 2020:930). Mshayisa (2022:10) also found that more informal platforms in blended lessons were preferred for group collaborative work to formal instruction and communication.

Table 5.13: Learning style preferences related to remote learning (%, N=145)

Preferred forms of communication preferred during remote learning						
	N/A	Least preferred	Less preferred	Neutral	Preferred	Most preferred
Prefer info from LMS	2.1	3.4	4.1	17.1	42.5	30.8
Prefer info in class WhatsApp group	3.4	11.6	19.9	28.8	28.1	8.2
Prefer contact lecturer on WhatsApp	6.2	15.8	15.1	25.3	26.7	11.0
Prefer class WhatsApp	0.0	9.6	8.9	26.0	38.4	17.1
Prefer direct lecturer-mail	3.4	6.2	12.3	28.1	30.1	19.9
The Best remote class						
	N/A	Least preferred	Less preferred	Neutral	Preferred	Most preferred
When lecturer camera is on	2.1	16.6	20	36.6	17.2	7.6
When my lecturers give opportunities to participate in online discussions	0	2.1	0.7	8.3	44.1	44.8
When I can ask questions	0	0.69	4.83	41.38	53.10	0
With PPT presentation	0.7	1.4	4.1	19.3	46.2	28.3
Interaction in online class						
	N/A	Least preferred	Less preferred	Neutral	Preferred	Most preferred
I DO NOT like to participate in online discussions	0.7	20.7	44.8	21.4	9.0	3.4

Studies related to design of blended classes (Cleveland-Innes & Wilton, 2018:21) fit-for-purpose (Pechenkina & Aeschliman, 2020:34), limitations with access (ReadLab, 2022:23), place limited attention to preferences in the learning environment (Aheto & Cronje, 2018:97), where data in this study could be critical.

The next enquiry into students' learning preferences relating to remote classes was the question regarding actions students took when they missed online classes. The conceptual discussion in Chapter 2 included issues of class attendance (Section 2.3.3.1) and academic programmes timetabling (Section 2.3.3.2) as major factors that impact learning. Issues of practices universities use as standards in academia, such as attendance requirements (Barefoot, 2004:11) timetabling for academic programmes, impacts of timetabling on students' attendance levels (Larabi-Marie-Sainte et al., 2021:2), and external factors that affected attendance levels when compounded with inflexible timetables are considered (Kelly, 2012:18,28-29).

The introduction of technology in education offers a level of flexibility for students (Gosper et al., 2010:251) who question the need for stringent attendance rules for online classes (O'Callaghan et al., 2017:405). Research into students' remote learning preferences scored high in a study by Gosper et al. (2010:255), and Pechenkina and Aeschliman (2020:33). This preference is in direct contrast with requirements for live remote class attendance. To probe this perception, students in this study were asked to respond to actions they took when online classes were missed. The response that scored highest on this issue indicated a preference for working at 'my' own pace (87.8% = CPUT; 61.1% = CUT; 64.4% = TUT).

The other critical element for remote learning is based on the Community of Inquiry Theory (COI) discussed in Section 3.5.1 on the importance of the community of learning within the remote learning environment. A few students preferred speaking to classmates to find out from them what was done in class (27.8% = CUT; 17.8% = TUT; 8.5% = CPUT). At this stage, a point of possible bias might be raised relating to the results received from CPUT compared to other universities regarding listening to class recordings when classes were missed as there was a visibly higher response from CPUT than from the other two institutions. This could, possibly, have arisen from the fact that the researcher is an academic staff member of the institution, which could have had an impact on this question.
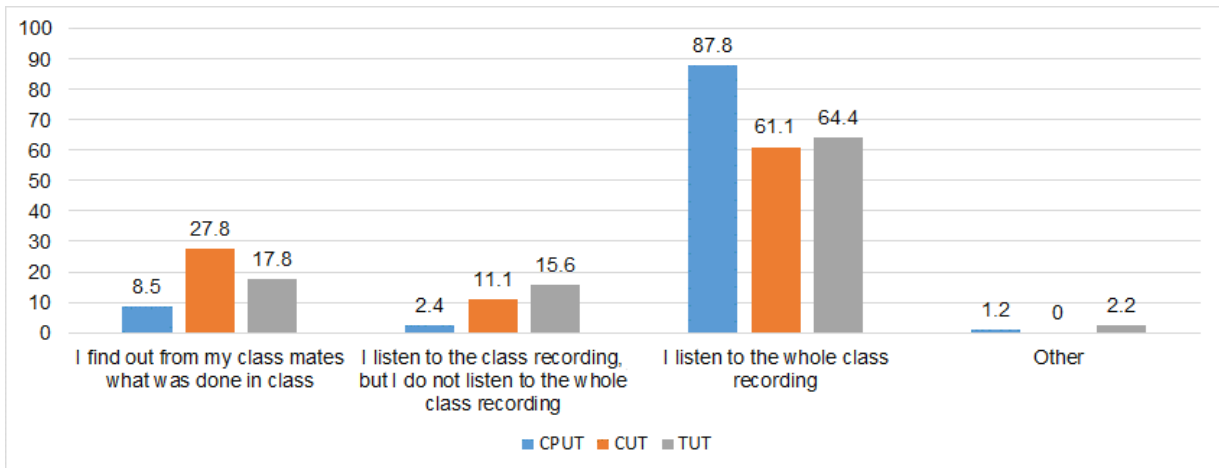
Figure 5.7: Action taken after missing an online class

'Other' responses were '*all the above*' and '*I find out what was done in class by my friends or listen to class recordings*'.

5.4.2.6 Remote versus face-to-face learning

In a study conducted by Kinlaw et al. (2012:168) assumptions were made that online classes were not as well attended as face-to-face classes. Preferences for online and face-to-face classes were investigated in this study to determine if Tourism students preferred one form over the other. Cross-tabulated data in Table 5.14 indicates some correlation between the preference for attendance on campus versus remote attendance per UoT as a p-value of 0.047, which is less than 0.05 (p = <0.05) was observed. For the question on the preference for attendance on campus, the chi-square test was conducted with a p = <0.05, indicating significance of X^2 (10, N=115) = 23.27, p = .0098). This indicated a highly significant association between variables of students' preferences to attend class on campus based on the university of study.

Comparison of results indicated the following:
- CPUT results indicated a negative sentiment towards remote class preference, with 36.6% disagreeing and 20.7% strongly disagreeing with the statements. Comparatively, responses to preference for on-campus attendance showed that 29.3% of students agreed with the preference for on-campus classes, while 20.7% disagreed. The results indicated a slight preference for on-campus classes compared to online classes.
- CUT data presented a higher significant preference for online class attendance with 27.8% strongly agreeing, while 22.2% were neutral to a preference for online classes. Comparatively, data on preference for campus classes returned significantly higher negative responses, with 38.9% strongly disagreeing and 22.2% disagreeing although a positive response of 27.8% was recorded. The data indicated a significantly negative

preference towards campus classes, with a high preference for online classes by CUT students.

- TUT results returned a more neutral stance, without a clear preference for online or on-campus classes compared to CUT and CPUT students' responses. TUT students were neutral, with 30.4% neutral responses, 26.1% disagreed and 23.9% agreed responses recorded on the online preference issue.

Table 5.14: Face-to-face class attendance vs online class attendance (%, N=115)

	UoT	N/A	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Chi-sq.
Prefer to attend remotely	CPUT	0	20.7	36.6	18.3	14.6	9.8	.047
	CUT	0	16.7	16.7	22.2	16.7	27.8	
	TUT	4.3	6.5	26.1	30.4	23.9	8.7	
Prefer to be on campus	CPUT	1.2	14.6	20.7	15.9	29.3	18.3	.009
	CUT	0	38.9	22.2	5.6	5.6	27.8	
	TUT	0	17.4	17.4	39.1	17.4	8.7	
Prefer to listen to class recording	CPUT	6.1	11	22	19.5	23.2	18.3	.001
	CUT	5.6	11.1	22.2	0	0	61.1	
	TUT	0	2.2	10.9	32.6	26.1	28.3	

For on-campus classes, responses recorded were 39.1% neutral, with 17.4% respectively, for 'agree' and 'disagree'. These results could mean a preference for a balanced blend of online and face-to-face classes (Le Roux & Nagel, 2018:4) or an undecided position on which options are most preferred (Pechenkina & Aeschliman, 2020:32).

Results depicted in Table 5.14 further illustrates students' preferences relating to online class attendance. The CUT student cohort leaned most towards a preference for remote class format shown in Table 5.14, but they were also not necessarily in favour of attending live online classes, rather preferring access to class recordings, as 61.1% of them strongly agreed that they preferred to listen to class recordings. In the following discussion to be able to draw conclusions, the chi-square test score for this question were less than 0.01 ($p = <0.01$), indicating a strong significance of X^2 (10, N=115) = 29.27, p = .0011) between the preference for attending online classes and accessing remote class recordings.

5.4.2.6.1 Student satisfaction with remote class attendance

A question was asked if students enjoyed attending remote classes. When this data was compared to responses on preferences for online versus face-to-face classes, some interesting data patterns emerged between comparisons in Table 5.14 and Figure 5.8. On the one hand, CPUT results presented a higher positive response to the question whether students enjoyed remote classes, with 34.1% agreeing and 20.7% strongly agreeing. Compared to the CPUT data in Table 5.14, where students indicated a preference for face-to-face classes, it was contradictory given their satisfaction with the remote classes compared to the preference for on-campus attendance.

CUT, on the other hand, presented a higher aggregate of preference for remote classes as shown in Table 5.14 and displayed comparative responses in Figure 5.8 when asked if students enjoyed attending remote classes. In line with the responses in Table 5.14, CUT students strongly disagreed (50%) that they enjoy attending remote classes. These results with the high preference for class recordings could also bring forth an issue regarding the design and implementation of remote classes across universities and factors that influenced these preferences.

TUT results, shown in Figure 5.8, depicted a similar trend to CPUT results, which revealed a higher positive response to the question regarding whether students enjoyed attending remote classes, with 28.3% 'agree' and 15.2% strongly 'disagree' responses compared to the negative responses (13.0% strongly 'disagree' and 15.2% 'disagree').
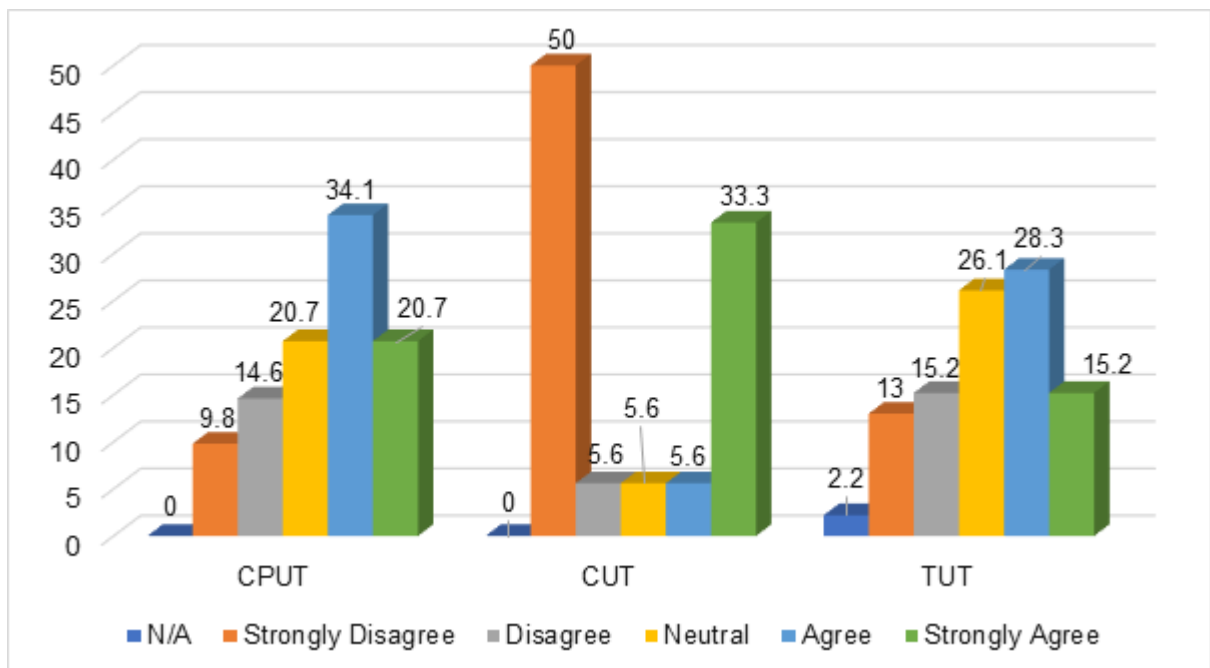
Figure 5.8: Did you enjoy attending remote classes? (%, N=146) (per UoT)

The results of the assessment of preferences and enjoyment of remote classes are clearly split and indicate a high significance based on the participating institutions. Data from CPUT indicated a preference for attending campus-based classes, but dissatisfaction? with attending classes remotely, while CUT data presented a preference for online lessons, while there was a lack of satisfaction with attending remote classes. TUT data was not conclusive on either option relating to a preference for remote class attendance or face-to-face, but results on the enjoyment of remote class attendance indicated satisfaction. The notion of a learning preference versus teaching practices being hit-or-miss regarding types of preferred class, forms of preferred communication and preferred forms of online interaction (Graf et al., 2006:235; Kim et al. 2018:901) could be used to describe the data presented in Table 5.13 and Figure 5.8. HE institutions have autonomy on the choice of LMS they implement for tuition to assist with blended class design (Saidi et al., 2021:958). The implementation practices, as well as integration of the LMS in teaching, could spell differences in success or student satisfaction (Mthethwa & Luthuli, 2021:93). The pandemic thrust the entire education system into a fully remote mode and programme leaders had to decide what model would be best suited for them. Pechenkina and Aeschliman (2020:26-27) raise an important point in assuming that students are tech-savvy and exhibit behaviour that could be conducive to online learning, which might have influenced decisions in assumptions of students' readiness for online learning.

Institutions, during the pandemic and due to restrictions introduced by the lockdowns, had to drastically shift teaching and learning from the traditional face-to-face type to the extreme continuum of hybrid learning (Mthethwa & Luthuli, 2021:94). There was no gradual introduction of the varied experiences of fully remote learning and, thus, no standard principle of how hybrid learning was to be implemented at the various institutions (Mpungose, 2020:5-6). An assumption based on the discussion of the results in this section was that teaching practices might impact students' learning.

A critical assessment based on objective one of this study was the review of learning style preferences within an online setting. Questions adapted from Kolb's learning cycle, based on ranking questions by highest scores pointed towards Tourism students being 'divergers', as Graham (2013:18) indicates. The students were drawn towards the face-to-face, or rather interactive components of the blend, which is a critical aspect for blended/hybrid curriculum model design also observed by Elmaadaway (2018:488).

5.4.3 SECTION C: STUDENT ACADEMIC PARTICIPATION BEHAVIOUR AND LEARNING ENVIRONMENT

Section C reviewed students' study-related practices during remote learning. Comparisons between students' academic participation and perceptions are presented in the discussion as well. Likert-scale questions, some open-ended, were used to collect data to respond to study objective two on reviewing current forms of student engagement in tourism programmes at the selected UoTs. As the study was conducted during remote learning periods, the questions focused on academic participation inside and outside the classroom. In understanding critical elements of remote learning, actions outside the classroom are also critical in enabling academic programme designers to be aware of areas that require interventions, where applicable, for successful hybrid/blended learning experiences.

5.4.3.1 Preparation for assessment and engagement with learning materials

Continuing with critical elements for remote learning based on the Community of Inquiry theory (COI) (Section 3.5.1) and the behaviour elements of Bandura's Social Learning Theory (Section 2.3.1), actions around how students approached assignments, assessments and resources available to them were assessed as presented in Tables 5.15 and 5.16. The approach to completion of assignments during remote learning was assessed first. In line with the EMAEA (2020:5) study, the results in Table 5.15 indicated how students preferred the 'assistance of peers and tutors during assignment completion/ as 49.0% of them agreed that they received from 'other students or tutors while completing assignments, while 32.5% disagreed with the statement that they get assistance directly from their 'lecturer'. In comparing these results to the responses shown in Table 5.13 on preferred communication channels during remote learning, there was a clear delimitation of what students prefer to communicate with the various parties within their online learning community.

Another critical finding related to perceptions on students start working late on assignments in remote learning settings. Interestingly, 31.8% of the responses were neutral to students 'working immediately on an assignment once they receive it' and 'procrastinating' on starting to work on the assignment. In the DHET, SA (2020b:44-45) study on assessment challenges with technology and learning during the pandemic, students admitted to being easily distracted during remote learning. One interview extract stated: "*I get distracted and end up steering away from my books and end up on for e.g. YouTube watching random entertainment videos*", and another noting "*I often find myself using my devices for watching Netflix and not working on them*" (DHET, SA, 2020b:44).

Table 5.15: Assignment engagement during remote learning (%, N=157)

Frequency distributions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I start working on an assignment immediately when I receive it	5.7	22.9	31.8	28.7	10.8
I procrastinate and leave doing my assignment too long, so am pressured to get it completed by the deadline	8.9	28.0	31.8	22.3	8.9
I ask my lecturer for advice when I am busy with the assignment	7.0	32.5	31.8	23.6	5.1
I get help from other students or tutors when I need to complete an assignment	2.5	12.1	28.0	49.0	8.3
When I get my test paper or assignment back, I thoroughly check through it and discuss my mistakes with my lecturer	1.9	35.0	31.8	22.9	8.3

Regarding preparing for tests, students displayed a preference to start preparations early, but like the responses to preparation of assignments, there was a large number of neutral responses, that is, neither agreed nor disagreed with early preparation for tests (Table 5.16). Although 53.7% (N=162) agreed to 'starting preparations for tests after a unit or chapter was covered in class', 31.4% (N=160) disagreed with the statement that they leave studying to a night or two before a test. In contradiction to attitudes towards preparing for assignments, there was evident sense of urgency displayed in the data regarding preparing for tests. The neutral responses could also be an indication that, rather than purposefully procrastinating on preparing for tests, students do suffer from distractions.

Another critical finding shown in Table 5.16 was students' perceptions around scope (guidelines to prepare for examinations). A Council on Higher Education (2010:154) study in South Africa indicated how perceptions around lecturers' sharing an examination scope could impact class attendance. In Table 5.16, sharing of examination guidelines is considered important as a positive and negative control questions were asked in the survey. About 43% (42.5%) of students strongly agreed that they 'study better for exams when the lecturer shares scope', with a further 38.8% of students agreeing with the statement. The control statement, 'I do not rely on the lecturer sharing an exam scope to prepare for tests or exams', which was a negative, returned 35.8% 'disagree' responses, with a further 22.0% strongly disagreeing. The assumption is that students perceive an examination scope as a critical support tool in preparation for assessments (Council on Higher Education, 2010:79).

Table 5.16: Preparation for tests and examinations during remote learning

Frequency distributions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I prepare better for tests by studying after a unit/chapter is covered in class (N=162)	1.2	6.8	18.5	53.7	19.8
I prepare for a test week in advance (N=161)	1.2	17.4	33.5	35.4	12.4
I prefer to only study for a test a few days before the test (N=160)	3.1	17.5	27.5	38.8	13.1
I put off studying for a test until a night or 2 before the test (N=159)	10.7	31.4	29.6	19.5	8.8
I study better for exams when a lecturer shares the exam scope (=160)	1.3	2.5	15.0	38.8	42.5
I do not rely on the lecturer sharing an exam scope to prepare for tests or exams (N=159)	22.0	35.8	23.9	9.4	8.8

Discrepancies in students' perceptions and experiences of their learning environment have been evident in research (Spearman & Watt, 2013:219). To assess this phenomenon in the study, questions were posed to students regarding their perceptions of remote learning and actual experiences amongst students in the various participating UoTs. Table 5.17 indicates differences in responses by students to questions on perceptions of Covid-19 impact on their learning and ability to compete in assessments during remote learning. The first question assessed students' perceptions on whether their 'academic performance was negatively impacted by remote learning'. Data from all UoTs' responses indicated further interesting results. Responses from student cohorts from CPUT (53.7%) and TUT (55.6%) exhibited high agreement with the statement that remote learning negatively impacted their academic performance compared to CUT (27.8%). These results, compared to Figure 5.8 on the enjoyment of remote classes, are a surprising because the assumption was that those CUT students who exhibited higher negative response (50%=strongly disagree) to the enjoying remote classes would have exhibited higher scores in agreement with the statement in this category (Table 5.17).

The results on completion and submission of assignments and completion of assessments during remote learning indicate an assumption of positive experiences towards completion of all assessments. Students at all participating UoTs agreed (CPUT=46.3%, CUT=33.3%, TUT=46.7%) or strongly agreed (CPUT=30.5%, CUT=33.3%, TUT=24.4%) to being 'able to complete all assessments during remote learning', which is a positive result for HE institutions for performing this well despite Covid-19 challenges. Surprisingly, CUT was the only institution

in this category that returned negative responses above 10%, with 11.1% 'disagree' and 11.1% 'strongly disagree' responses.

The question on the ability to submit all assignments on time during remote learning presented a picture that assignments submission during remote learning was possible, but students did not manage well with timely submissions. Caution should be exercised in assessing this question owing to possible confusion that students may have experienced in answering the question. When compared to the previous question, the two elements in this question 'able to submit all assignments', and 'on time', might not have been fully understood by all participants, which could impact the results (Table 5.17).

Based on the notion that participants understood the question well, issues of time management and assignment submissions in remote learning need to be carefully considered. Responses to the question if students were 'able to submit all assignments on time' returned a neutral to inconclusive response from CPUT (23.2%=agree, 23.2%=neutral, 22%=disagree), a neutral to negative response from CUT (22.2% neutral, 22.2%=disagree, 16.7%=agree), while TUT data showed a negative response (24.4%=disagree, 22.2% strongly disagree, 20%=neutral) (Table 5.17). Assumptions from this answer are that students at HE institutions do struggle with timeous submission of assignments. A limitation of this study was the absence of an open-ended follow-up question on where the problem lies for HE students and assignment submission deadlines as well as factors impacting on timely assignment submissions, which could be added in future research.

The last question in Table 5.17 evaluated perceptions of group work during remote learning, which is an important attribute of 21st century HE students and graduates (Tseng & Walsh, 2016:50; Donina & Lapina, 2020:48). The question asked students if 'group assignments were easy to complete during remote learning'. The chi-square test result was less than 0.01 ($p = <0.01$), which indicated significance with students' perceptions of ease with group assignments during remote learning, when assessed per institution of learning, X^2 (10, N=145) = 26,84, $p = .0028$). The results, when presented in total positive scores, show that CPUT scored positive responses with 53.7% 'agree' and 24.4% 'strongly agree', followed by CUT with 38.9%, respectively, for 'agree' and 'strongly agree'. TUT recorded 31.1% 'agree' and 31.1% neutral. It should be noted that some of the TUT cohorts who did not have remote learning (the ECP students) made up 15.6% (N/A) of the total TUT responses.

Table 5.17: Covid-19 impacts, academic participation vs perceptions

UoT	N/A	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Chi-sq.
My academic performance is/was NEGATIVELY impacted by remote learning (N=146)							
CPUT	2.4	2.4	4.9	9.8	53.7	26.8	0.4832
CUT	5.6	5.6	16.7	22.2	27.8	22.2	
TUT	4.4	2.2	4.4	8.9	55.6	24.4	
I am/was able to complete all my assessments during remote learning (N=146)							
CPUT	2.4	2.4	6.1	12.2	46.3	30.5	0.6558
CUT	5.6	11.1	11.1	5.6	33.3	33.3	
TUT	4.4	2.2	4.4	17.8	46.7	24.4	
I manage(d) to submit all my assignments on time during remote learning (N=145)							
CPUT	12.2	13.4	22	23.2	23.2	6.1	0.8778
CUT	11.1	11.1	22.2	22.2	16.7	16.7	
TUT	8.9	22.2	24.4	20	15.6	8.9	
Group assignments are/were easy to complete during remote learning (N=145)							
CPUT	0	2.4	3.7	15.9	53.7	24.4	0.0028
CUT	0	5.6	0	16.7	38.9	38.9	
TUT	15.6	2.2	4.4	31.1	31.1	15.6	

The EMAEA (2020:32) study also indicated that students enjoyed collaborating with others during remote learning, but that some challenges such as lack of personal interaction and issues with internet connectivity could have impacted their perceptions of group work negatively (EMAEA, 2020:34). Based on this assessment, the results in Section E, hopefully, provide clarity on the issues that impacted remote learning.

5.4.3.2 Students' self-awareness and mindfulness

Another critical discussion in the higher education sector has been students' mental wellbeing (Warwick et al., 2008:2; McBride, 2019:147). Currently, the emotional demands remote learning has placed on students could see the development of new challenges (Naidoo & Cartwright, 2020:2; McCain & Evans, 2022). This part of the survey assessed factors around students' self-awareness and mindfulness as critical aspects of learning (Brewer et al., 2019:1114). The analysis was conducted with five-point Likert scale questions (1 = strongly disagree, to 5 = strongly agree) in the online survey. Cross-tabulations were conducted with multiple variables, including university of study, gender, age, level of study, and accommodation to test for significance. The results did not show significance in several

variables. Table 5.18 presents the results with chi-square test results based on the gender variable. Where other variables presented some level of significance, those results are also presented. The results in Table 5.18 are discussed together with findings in Section D, which considered students' perceptions of the learning environment.

The first assessment conducted was on stress and nervousness students felt around assessments and how these may have affected their personal wellbeing. Students were asked if they 'get stressed and nervous about tests and how this affected their performance'. In general, students felt nervous about assessments (Warwick et al., 2008:7). About 33% (32.7%) of the students agreed with the statement and 18.9% strongly agreed. However, 25.2% of responses were neutral, with 18.9% disagreeing responses. This could be attributed to writing assessments remotely, which some students indicated a preference for in the 2020 DHET study (DHET, SA, 2020b:56) offering the following sample qualitative responses:

> I *am not panicking when writing tests because there's no invigilator that's walking around and making me nervous instead, I am in my own space and I'm more relaxed to read the question*
> *Online exams really reduced my anxiety, I got better results due to writing online and some of my lecturers were really supportive and interactive during online exams.*
> (DHET, SA, 2020b:56)

On assessing the impact of assessment stress on students' eating habits, students indicated that their 'eating habits tended to change for worse [sic] during assessment time' (27.4% = agree, 22.6% = strongly agree). Significance per gender was not evident, but strong significance with regard to levels of study was observed, with the p-value less 0.01 ($p = $ <0.01) was observed, X^2 (16, N=234) = 31,47, $p = $ .00117). The results indicated that changes in eating habits impacted exit-level students more than first- and second-year students. With an understanding of the anxiety about graduating, this result was expected.

The change in eating habits was more attributed to 'eating less during busy study times', with 26.2% of students agreeing and 24% strongly agreeing with the statement. With regard to the issue of use of stimulants, students were less dependent on stimulants; 29% (N=235) of the students disagreed, while 18.6% strongly disagreed with 'using stimulants to help stay awake', although 20.3% of students agreed, with neutral responses at 19%.

When it came to awareness of time management, students presented some form of restraint, with 38% (N=234) indicating that they agreed that they 'study according to a set timetable', and 30.8% (N=233) agreeing to exercise discipline with managing their time. Although there was evidence of uncertainty as well, neutral responses to managing own time were 32.9% (N=234). The results indicated female students were more stringent with time management than their male counterparts as the p-value result was below 0.05 ($p = $ <0.05), indicating some

significance X^2 (4, N=234) = 11,58, p = .0208). Strong self-awareness was depicted by the students indicating that they 'knew they could spend more constructive time on studies if they tried'. About fifty-two percent (51.5%, N=232) agreed and 34.3% strongly agreed with this statement. Linking back to the question on distractions (Table 5.18) and results in Section 5.4.3.1, the level of awareness assists with managing control over time management, especially during remote learning.

The question of making time to exercise leaned more towards male students' willingness to act than their female counterparts. The p-value result was strongly significant at less than 0.01 (p = <0.01), X^2 (4, N=233) = 18,04, p = .0012). The overall results showed a totally negative view towards exercise with most neutral responses (27.5%), followed by 'disagree' (26.6%), and 'strongly disagree' (14.6%), while 'agree' responses scored 21.9%.

Table 5.18: Student self-awareness and mindfulness

Frequency distributions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Chi-sq.
I get stressed and nervous about tests and this affects my performance (N=159)	5	18.2	25.2	32.7	18.9	.371
My eating habits change for the worse during assessment time or when I have a lot of assignment work to do (N=234)	8.5	22.6	18.8	27.4	22.6	.757**
I tend to eat more and eat unhealthy foods during busy study times (N=234)	14.5	35.5	17.9	17.9	14.1	.914
I tend to eat less when I am stressed during busy study times (N=233)	7.7	25.8	16.3	26.2	24	.346
I am easily distracted from my work and studying (N=234)	7.7	22.2	23.9	29.5	16.7	.910
I make use of stimulants such as coffee, Redbull or tablets containing caffeine to help me to stay awake (N=235)	18.6	29	19	20.3	13	.734
I study according to a study timetable I set for myself (N=234)	5.1	17.9	21.4	38	17.5	.420
I am disciplined at managing my time (N=234)	5.1	19.2	32.9	30.8	12	.020
I am happy with the amount of time I spend studying and preparing for my subjects (N=233)	9.9	22.3	24	33	10.7	.884
I do well at balancing my time between studying and socialising (N=233)	6.9	18.9	25.3	35.2	13.7	.733
I know I could spend more constructive time on my studies if I tried (N=232)	0.4	1.7	12	51.5	34.3	.393

I make time to exercise (N=233)	14.6	26.6	27.5	21.9	9.4	.001

** Chi-square test on level of study variable X^2 (10, N=234) = 31,47, *p* = .00117).

5.4.4 SECTION D: LEARNING ENVIRONMENT

This study identified the learning environment (Section 2.3) as one of the critical aspects of student learning. Section D leads the discussion with a review of Tourism students' perception of university facilities available to them, followed by a discussion on students' perceptions of their remote learning environments, which may impact their academic experiences. The survey instrument in this section was designed with close-ended questions, and some open-ended questions on a five-point Likert scale, with 1 = strongly disagree to 5 = strongly agree. A 'Not Applicable' (0) score was also included in the scale for students who might have to attend remotely without the option of visiting the university campus due to their not residing close to the university of study (Table 5.19).

Other items in the survey instrument were tested with 'Yes' or 'No' questions, which also included N/A options. Perception rating questions on the quality of university facilities and services were assessed using a five-point rating scale, ranging from 1 = excellent, 2 = good, 3 = undecided, 4 = bad, to 5 = very bad. A 0 or 'N/A' option was also included in the scale. To test the statistical significance of the results, both the Pearson and Likelihood ratio Chi-squares and conservative observations (less than 5%) p = <0.05) were used, with strong evidence measures at a p-value less than 0.01 for strong significance. The variables university of study, gender, and accommodation type variables were used for correlation tests.

5.4.4.1 Perceptions of learning facilities and support services on campus

Education institutions globally (ReadLab, 2022:11-17) and in South Africa (Council on Higher Education, 2020:10; Hlatshwayo & Shawa, 2020:30-36) has been reviewed on its responsiveness to continuing the academic programme and students' requirements during remote learning. Generally, students have been observed to perceive their education experiences and academic performance as impacted by the quality of the learning environment (Kamaruddin et al., 2009:172). Students' perceptions of university facilities investigated in this study returned all-around positive results based on students' perceptions. The assessment of library facilities, university cafeteria, printing facilities, administration, and general conditions of the campus from all participating UoTs returned uniform 'good' scores (Table 5.19). For this question, the 'bad' and 'very bad' categories returned very low scores across institutions and, as a result, these ratings were combined to represent one rating category (4 = bad). Where anomalies of negative results were observed summaries are presented as follows:

- The CUT responses on the assessment of 'university transport' returned a high score of 'undecided' responses (42.1%) and 'bad' (15.8%) rating, which could be an indication that either the institution does not have an internally managed transport system, or the system is highly inefficient. The question included an open-ended option for further comments, but no comments were recorded by the participants. Further assessment of other variables presented results that could indicate overall transport in the city of Bloemfontein, where the UoT is situated, could have a general transport problem. Cross-tabulation of the variable accommodation types while studying returned a Chi-square result of p=.0002, with values of 58.06%, indicating high significance in results per institution. This finding suggests that students who lived in university residences and private accommodation scored transportation either as 'bad' or 'undecided' (Table 5.19).

Table 5.19: Perception rating of facilities on campus

UoT	N/A	Excellent	Good	Undecided	Bad	Chi-sq.
Library						
CPUT	11.8	31.8	42.4	14.1	0	0.1535
CUT	5.3	42.1	47.4	0	5.3	
TUT	8.3	25	47.9	10.4	8.3	
Cafeteria						
CPUT	25.9	7.1	42.4	20	4.7	0.0675
CUT	5.3	21.1	47.4	26.3	0	
TUT	8.3	16.7	37.5	29.2	8.3	
Printing facilities						
CPUT	15.3	20	47.1	15.3	2.4	0.3938
CUT	5.3	21.1	47.4	21.1	5.3	
TUT	8.3	14.6	50	14.6	12.5	
Computer labs for personal study/assignments						
CPUT	10.6	37.6	40	10.6	1.2	0.5886
CUT	5.3	31.6	42.1	10.5	10.5	
TUT	10.4	33.3	33.3	16.7	6.3	
Security						
CPUT	5.9	43.5	41.2	5.9	3.5	0.1393
CUT	5.3	42.1	31.6	15.8	5.3	
TUT	2.1	29.2	52.1	10.4	6.3	
University transport						
CPUT	16.5	35.3	37.6	9.4	1.2	.000**
CUT	26.3	0	15.8	42.1	15.8	
TUT	6.3	33.3	43.8	6.3	10.4	
Administration						
CPUT	9.4	22.4	45.9	16.5	5.9	0.3351
CUT	5.3	15.8	42.1	31.6	5.3	
TUT	0	20.8	41.7	22.9	14.6	
General condition of campus						
CPUT	3.5	29.4	54.1	11.8	1.2	0.2304
CUT	5.3	36.8	42.1	10.5	5.3	
TUT	0	18.8	58.3	12.5	10.4	

** Chi-square test on type of accommodation while studying X^2 (25, N=152) = 58,06, *p* = 0002).

5.4.4.2 Use of the university library on campus

Preference for the use of library facilities for studies amongst UoTs' Tourism Management students was also assessed. The variable used for assessment of the preference for use of the campus library was accommodation type, based on the type of students' residence (Table 5.20). The Pearson's Chi-square two-sided test revealed that 'where students reside', did not have any impact on preferential use of the university library as the p-value was greater than 0.05 (p = >.05). X^2 (20, N= 229) = 29.08, p = .0861**. Taking into consideration that 35.5% of respondents who resided in university residences, which are on the same site with the campus or have free shuttles to and from the university campuses' respective residences daily, did not prefer to use the university library, with 35.6% 'disagree' responses. The highest responses of students who disagreed with the statement were those who 'stay in a shack', with 60% responses; the same percentage (60%) agreed with the preference to 'study at home' (Table 5.20).

Results from students who 'rent a room,' as shown in Table 5.20, were split on the preference of using the university library, with 36.4% of respondents agreeing versus 36.4% who 'strongly disagreed' with the statement, while responses on 'preference to study at home' were conclusive, with 54.5% agreeing and 27.3% strongly agreeing. Based on these results, an assumption could be made that for economic reasons students opted not to travel to campus if they did not see the reasons to travel valid, such as attending face-to-face classes or completing group assignments. A further assumption was that a shack might not be a suitable environment for students to study because students do not have private or quiet places, but the result was surprising. Section 5.4.4.3 clearly outlines the results of study preferences compared to suitability of the learning environment at home.

5.4.4.3 Suitability of the home learning space compared to study preference

A further assessment of preferences to study at home is presented in Table 5.20, which indicates that student cohorts who 'stay in a shack' disagree (35.5%=strongly disagree; 35.5%=disagree) and students who 'rent a room' (36.4%=disagree; 27.3%=neutral) were negatively affected regarding access to 'quiet space to study'. Regarding a 'private space to study', although some had a quiet space for study, it was not 'private'. This could mean sharing a bedroom with a roommate as disagree statements (residence = 26.5%, private accommodation = 26.8%, communal flat = 42.8%, shack = 30%, renting a room = 45.5%). A further 40% of students who resided in a shack strongly disagreed to having access to a private space to study. Data in Table 5.20 indicates that even though access to a suitable learning home environment (quiet and silent for study) was not a possibility for most students, students'

preferences to study in silence returned 'agree' and 'strongly agree' preferences to 'study in silence'. Interestingly, students also did not prefer to study with background noise like a TV (strongly disagree and disagree) or a radio (disagree and neutral) playing in the background, as noise cancellation mechanisms. The evidence shown in Table 5.20 could suggest that there was a misalignment in the suitability of the home study environment to students' study preferences.

Table 5.20: Students' preferences relating to the home learning environment

Prefer use library (N=230)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I stay in university residence	8.9	35.6	30.7	18.8	5.9
I stay in private accommodation	17.1	31.7	26.8	22	2.4
I stay in a communal flat/house/accommodation	13.2	21.1	31.6	26.3	7.9
I stay in a shack	10	60	10	15	5
I am renting a room	36.4	9.1	0	36.4	18.2
Other	11.1	50	16.7	16.7	5.6
Prefer to spend study time at home (N=229)					
I stay in university residence	1	5.9	5	52.5	35.6
I stay in private accommodation	2.4	2.4	14.6	48.8	31.7
I stay in a communal flat/house/accommodation	2.6	2.6	10.5	42.1	42.1
I stay in a shack	0	0	15	60	25
I am renting a room	9.1	0	9.1	54.5	27.3
Other	0	0	5.6	55.6	38.9
Prefer to study with music (N=230)					
I stay in university residence	22.5	29.4	20.6	21.6	5.9
I stay in private accommodation	34.1	22	22	17.1	4.9
I stay in a communal flat/house/accommodation	34.2	39.5	5.3	7.9	13.2
I stay in a shack	30	20	30	5	15
I am renting a room	18.2	27.3	45.5	9.1	0
Other	27.8	38.9	11.1	5.6	16.7
Prefer to study with TV (N=230)					
I stay in university residence	44.1	46.1	3.9	4.9	1
I stay in private accommodation	43.9	48.8	4.9	2.4	0
I stay in a communal flat/house/accommodation	36.8	50	10.5	0	2.6
I stay in a shack	35	50	15	0	0
I am renting a room	45.5	27.3	27.3	0	0
Other	61.1	38.9	0	0	0
Prefer to study in silence (N=230)					
I stay in university residence	5.9	15.7	18.6	26.5	33.3
I stay in private accommodation	2.4	4.9	19.5	29.3	43.9
I stay in a communal flat/house/accommodation	5.3	7.9	21.1	18.4	47.4
I stay in a shack	0	5	20	30	45
I am renting a room	0	9.1	9.1	27.3	54.5
Other	5.6	11.1	11.1	22.2	50
Prefer to have access to a quiet study space					
I stay in university residence	6.9	20.6	19.6	43.1	9.8
I stay in private accommodation	12.2	19.5	19.5	36.6	12.2
I stay in a communal flat/house/accommodation	7.9	15.8	31.6	39.5	5.3
I stay in a shack	35	35	10	15	5
I am renting a room	9.1	36.4	27.3	18.2	9.1
Other	11.1	27.8	16.7	27.8	16.7
Prefer to have access to a private space (N=230)					

I stay in university residence	9.8	26.5	22.5	33.3	7.8
I stay in private accommodation	7.3	26.8	22	31.7	12.2
I stay in a communal flat/house/accommodation	7.9	42.1	28.9	18.4	2.6
I stay in a shack	40	30	15	10	5
I am renting a room	9.1	45.5	18.2	18.2	9.1
Other	22.2	16.7	16.7	27.8	16.7

Further assumptions on the outcomes in Table 5.20 are presented in Section D summary.

5.4.4.3 Use of university library online platform

To further assess the effectiveness of UoTs' library facilities during the remote learning period, access to the online library platform, and access to physical library resources during this period were assessed (Table 5.21). A five-point Likert scale of options 1 = strongly disagree, to 5 = strongly agree was used. The 'Not Applicable' (0) option was also included on the Likert scale to consider those students who were not based in the province of study during remote learning and could not have physically accessed the physical campus library. A hundred and forty-seven (N=147) students opted to answer this section of the questionnaire. The results illustrate variances in operational approaches and readiness for remote learning by the UoTs participating in the study.

The results presented in Table 5.21 could lead to a conclusion on the preparation of institutions as well as of Tourism students for remote learning, with special attention to library facilities. CPUT data suggested that students did not agree there was easy access to the university library facilities, with 39% disagreeing and 20.7% strongly disagreeing that there was 'easy access to the online library during remote learning'. CPUT responded positively to the statement that there was easy access to library books during remote learning, with 30.5% of responses agreeing with the statement. The data also indicated neutral responses of 29.3%, leading to an assumption that the students did not use the facilities or attempt to during remote learning. Contrary to CPUT data in Table 5.20, CUT results pointed to positive responses to students who had easy access to the online library, with 33.3% agreeing. However, another 33.3% of students disagreed with the statement that there was easy access to library books during remote learning.

The TUT results indicated negative responses to online access to the library with 26.1% strongly disagreeing and 21.7% disagreeing. A further 23.9% of the students provided a neutral response, which could also be an assumption of non-attempt to use the facility. On the issue of 'easy access to books during remote learning', TUT results also indicated a negative response to the statement, with 30.4% of students disagreeing with it (Table 5.21).

Table 5.21: Access to online library and resources

UoT	N/A	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Easy access online library during remote learning						
CPUT	7.3	20.7	39	15.9	6.1	11
CUT	11.1	11.1	11.1	16.7	33.3	16.7
TUT	6.5	26.1	21.7	23.9	19.6	2.2
Easy access library books during remote learning						
CPUT	12.2	4.9	17.1	29.3	30.5	6.1
CUT	5.6	16.7	33.3	22.2	11.1	11.1
TUT	19.6	15.2	30.4	19.6	10.9	4.3

The data presented in Section D assessed Tourism students on- and off-campus learning environments. Data indicated that although most students did not have a 'quiet' or a 'private' study space, using the campus library was not a preferred option for them. The most evident data was that of students who lived in a shack, 60% of whom indicated they did not prefer to use the campus library, while 35.6% agreed and 30.7% were neutral. Compared to results in Section A (Table 5.6 and Figure 5.3), travel to campus outside of attending face-to-face classes was not preferred by students; they rather preferred to study at home. This could be attributed to geographical placement of locations and suburbs in South Africa, which do not have an easily integrated transport system, making accessibility to university campuses difficult and, possibly, involving high travel costs. That said, students who resided in university residences also indicated a preference for not visiting the library for study, preferring to study at their residences. The assumption that due to the misaligned preferences of access to a quiet and private study space at home resulted in the use of noise-cancellation mechanisms like playing the TV or radio was contradicted by tourism students' preferences to study in silence.

Results on the use of the online library indicated a positive response to the availability of good library facilities at all participating UoTs, but indicated challenges where access to the facilities and resources varied per UoT, as was observed in a study by Ocholla and Ocholla (2020:360-365). Regarding access to the online library, CPUT results ranged from neutral to negative, CUT results were positive, while TUT results also ranged from neutral to negative. With regard to access to online books, CPUT responses were positive, whereas CUT results were neutral to negative and TUT's neutral.

Discussions in Section D also presented remote learning, and campus environment challenges, which were similar to findings of studies by McGhie (2012:102-103) and a report by DHET, SA (2020b:41). These challenges make access to university facilities, especially

during remote learning, an essential consideration when programmes are designed. Tourism qualifications and institutions in HE should also consider the integration of specialised orientation programmes aimed at empowering students with skills on access to further online learning platforms such as the online library. Departmental training should not be limited to the use of the LMS system (Dlamini et al., 2021:69) only. The results on ease of access to the university online library and online resources (Table 5.21) clearly indicated limitations students experienced in this regard. These results are discussed with emerging results in Section.

5.4.5 SECTION E: IMPACT OF COVID-19 ON STUDENT LEARNING

Results in Section E relate to objective five regarding the impacts of Covid-19 pandemic on learning in HE, assessment of students' learning practices during remote learning and issues related to access to learning. The results were compared with research conducted by the Council on Higher Education (2020); DHET, SA (2020b); EMAEA, (2020); and ReadLab (2022) as well as findings from other researchers in this field on similar issues.

5.4.5.1 Students' perceptions of remote learning

The discussion in this section commences by reviewing data on students preferences for remote learning and delves into further analysis of learning style preferences, which might have an impact on the students' enjoyment of remote learning. The initial assessment of this question is presented in Figure 5.8 (Section 5.4.2.6.1) where results of students' satisfaction are assessed and compared per institution. In this section (Figure 5.9) data are presented with comparisons across levels of study, where the most impacts were observed. The highest impacts were observed specifically among students who were first-time university entrants (ECP and first-year students), those who entered university for the first time in remote format, and those students who were traditionally on-campus attendees before the pandemic (third-year and Advanced Diploma/fourth-year students). The question on preferences regarding remote learning experiences returned N=147 (52.3%) responses from the total study sample (N=261). The question was a five-point Likert scale, which assessed whether students enjoyed remote learning during the lockdown, with responses ranging from 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree to 5 = strongly agree. The data suggested varying preferences from the different study levels, leading to the assumption that preferences for online learning were based on certain conditions, presented in the discussion. The 'strongly disagree' and 'disagree', as well as the 'strongly agree' and 'agree' scales were combined into a summarised scales of agree and disagree, as was explained in Section 5.3 (data administration).

Figure 5.9 illustrates overall responses that indicated positive experiences related to online learning. Most of the first-year ECP students indicated they enjoyed online learning with 63% of them agreeing to have 'enjoyed remote learning'. On the contrary, first-year mainstream students recorded a split preference with 43%, respectively, split between responses that agreed to having enjoyed remote learning and another 43% who disagreed. Fifteen percent (15%) of the first-year students' responses were neutral on this question. These results depict an interesting observation based on the impact of extended and mainstream academic programme design on learning regarding transition into HE. ECP students in their first year of entry are allowed to register for only 50% of the full complement of subjects split over two years, which translates to three subjects a year of ECP. Mainstream students in the first year complete 100% of their course subjects, which translates to six subjects. The restructured design of the ECP programmes could be beneficial in responding to addressing academic pressures experienced by first-time entrants to HE (Taylor & Shindler, 2016:15).

Data in Figure 5.9 indicate that senior students were more inclined to enjoy remote learning compared to their junior counterparts. Most second-year students indicated that they had enjoyed the remote learning experience (56%), while 20% were neutral on this question, and 20% disagreed with the statement. For third-year students, 43% agreed with the statement that they enjoyed remote learning, while 33% responses were neutral and 20% disagreed with the statement. For fourth-year students who responded, most were Advanced Diploma students' responses, which mirrored those of the first-year students in that the responses were split between 40% who agreed to have enjoyed remote learning and 40% who disagreed, with 20% of responses being neutral to the question (Figure 5.9).

As the Advanced Diploma programme is a fourth-year level qualification with varying teaching and learning practices different from the undergraduate programmes, this could also be an indication of a feeling of under-preparedness of undergraduate students to postgraduate qualifications regarding academic expectations and various teaching styles at undergraduate and postgraduate levels.
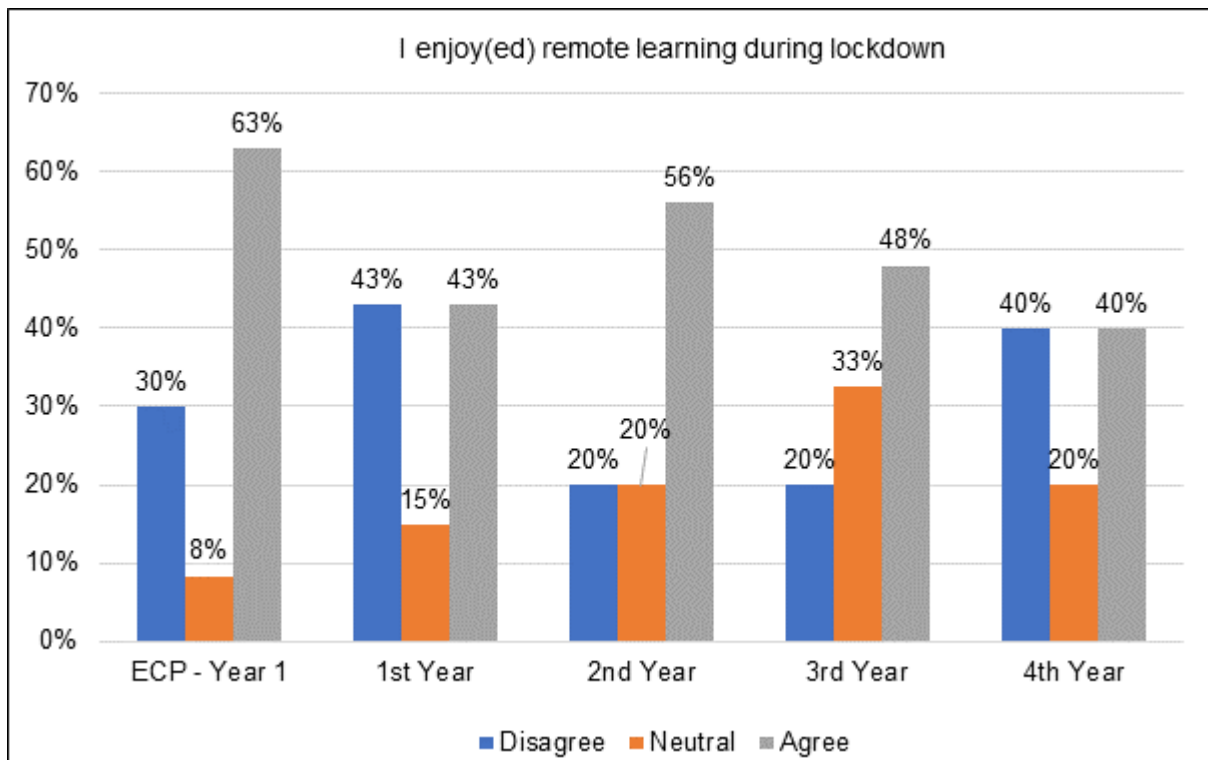
Figure 5.9: Perceptions of remote learning experiences: implications per study level (N=147)

5.4.5.2 Availability and ease of access to learning platforms

Figure 5.10 assessed issues of availability of the LMS platforms at participating UoTs in comparison to how easily students found access to these platforms while learning remotely. The results of access to online library and resources (Table 5.21) provided evidence of challenges students may have faced regarding ease of access. The user-friendliness of the LMS systems, which is the platform UoTs used for classes remotely (Pechenkina & Aeschliman, 2020:34) is critical for students' learning experiences. LMS platforms at UoTs in South Africa, such as Moodle, Blackboard, 1board (Naidoo & Cartwright, 2020:11) are based on commercial servers hosted at external sites (Saide.org, 2007:1-2), which are not designed to withstand South African-specific issues like load-shedding and breaks in connectivity (Burtsev, 2021:10823), which impact on the offer of a seamless experience for students. As this study did not investigate in detail factors affecting perceptions of ease, assumptions were based on study findings by (Matarirano et al., 2021:198-199), which assumed that students who enjoyed remote learning perceived ease of access to the LMS. The assumption could be reality-based given the results presented in Section 5.4.5.1 (Figure 5.10). The assumption was not conclusive as tests used in this study were not similar to those applied in the study (Matarirano et al., 2021:193-194).

Results shown in Figure 5.11 indicate a positive perception towards availability of the LMS platform at all participating institutions (TUT = 35.56% agree and 24.44% neutral; CUT = 44.44% strongly agree and 22.22% agree; CPUT = 45.12% agree and 30.49% strongly agree).

Where negative results were observed, the possibility of impacts, as a result of internet outages, availability of data to access or electricity outages, known as blackouts in South Africa is a of concern (DHET, SA, 2020b:37).

Ease of access could be attributed to a combination of factors, including interaction with the interface, as results from the DHET, SA, (2020b) stated the following survey responses:

> "I find having recordings of the lectures saved on my device very helpful, as I can re-watch it and email the lecturer with any questions, I may have concerning certain areas of work",
>
> "Having different formats of content helps solidify the concepts more deeply (e.g. textbook, lecture video recordings, notes, external videos)" (DHET, SA, 2020b:37-38).

In this study TUT data returned 31.11% neutral and 31.11% agree responses to 'ease of access to the LMS', while CUT data returned 38.89 strongly agree and 38.89% agree responses. CPUT data was 53.7% agree and 24.4% strongly agree responses to 'ease of access to the LMS'.
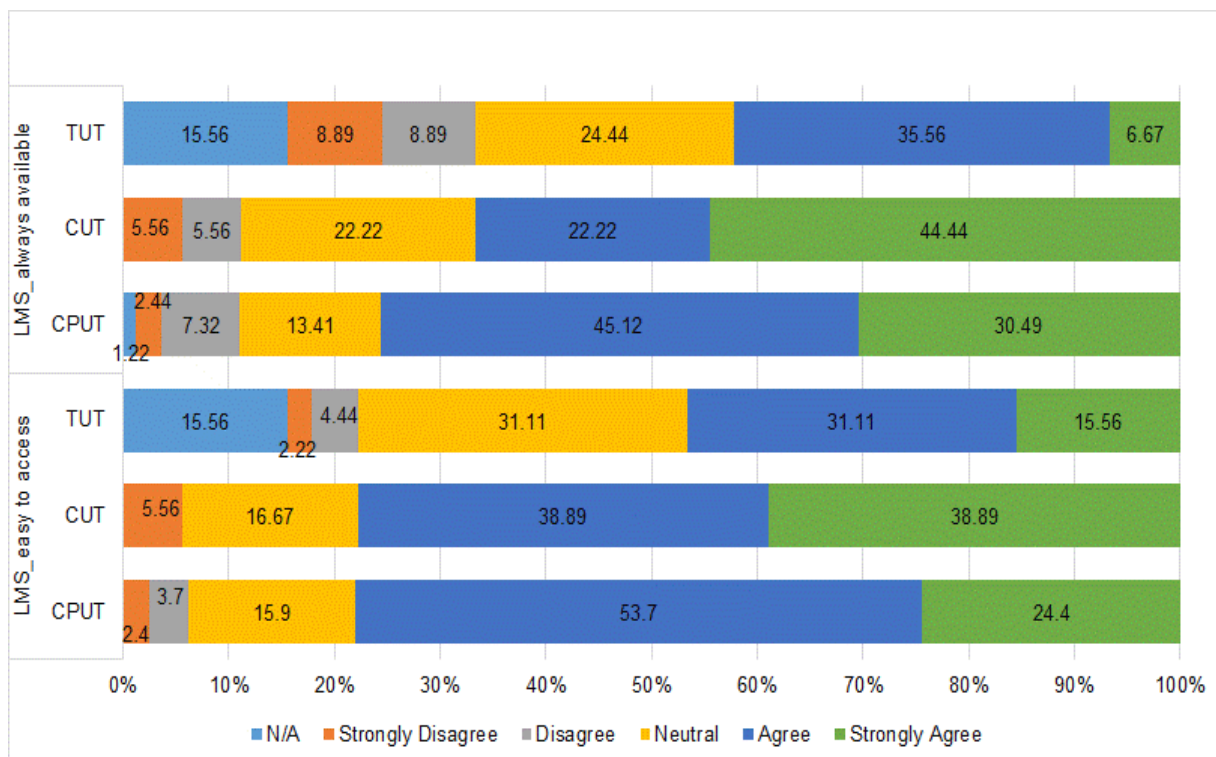
Figure 5.10: Availability vs use of learning platforms during remote learning

5.4.5.3 Devices used and connectivity option during remote learning

The 2020 DHET report on access to online learning indicated that most devices used during remote lockdown were smartphones (89%) and laptops at 58% (DHET, SA, 2020b:24). That

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research went into detail in enquiring how students attained their devices, with responses indicating 36% receiving their devices from a family member, 33% buying it themselves and the other 33% using their NSFAS allowance to purchase the laptop (DHET, SA, 2020b:24. To draw close to similar results for comparison with the DHET 2020 report, data in this study on the type of 'device type used' was cross-tabulated to data based on 'who pays study fees', which was assessed in Figure 5.4, with N=260 responses.

The results in Table 5.22 show N=145 responses. About 47 percent (46.9%) of the N=124 NSFAS-funded students had a 'laptop and smart phone' for learning, while 26.9% had a 'smartphone'. Fifteen percent (15.2%) of students with a 'laptop' indicated using a 'laptop and a smartphone' for online learning. In comparison to the DHET 2020 report (DHET, SA, 2020b:25), the percentages of NSFAS-funded students who owned a laptop had increased dramatically.

Table 5.22: Devices used for remote learning (%)

Who pays for your studies?	Laptop	Tablet	Smart phone	Laptop and smart phone	Tablet and smart phone	Laptop, tablet, smart phone	Count	%
My parents	0.7	0.0	0.7	2.8	0.7	0.0	7	4.8
Another family member	1.4	0.0	0.0	2.1	0.0	0.0	5	3.4
A sponsor	0.7	0.0	0.0	0.0	0.0	0.0	1	0.7
I pay for my studies	0.7	0.0	1.4	1.4	0.0	0.0	5	3.4
NSFAS Bursary	15.2	0.7	26.9	40.7	0.7	1.4	124	85.5
Study loan (bank)	0.0	0.0	1.4	0.0	0.0	0.0	2	1.4
Bursary from private company bursary	0.7	0.0	0.0	0.0	0.0	0.0	1	0.7
Total	**28**	**1**	**44**	**68**	**2**	**2**	**145**	**100.0**
%	**19.3**	**0.7**	**30.3**	**46.9**	**1.4**	**1.4**	**100.0**	

Whether the students purchased the devices with the NSFAS funding could not be conclusively established as the online survey did not have a direct question on the source of the device, but the results could draw a strong assumption that Tourism students used their NSFAS funding to purchase laptops for online study.

5.4.5.4 Remote learning resources and frequency of availability

Regarding the frequency of availability of connectivity and remote learning resources during remote learning, items were assessed with a five-point Likert scale ranging from 1 = Never, 2 = seldom, 3 = sometimes, 4 = often, to 5 = always. A 0 = N/A option was included in the scale to capture responses from students who did not have any access to the resources being investigated.

The questions in Table 5.23, which started with evaluating the availability of electricity outside of load-shedding schedules, were assessed. Load-shedding is a process where an electricity outage is implanted by municipalities and energy regulators in an attempt to avoid a complete collapse of the electricity system whenever there is a strain on the electricity grid (Polokwane Local Municipality, n.d.:1-5). The energy regulator, in collaboration with municipalities, implemented schedules that were at two-hour intervals, used to notify customers of when load-shedding was to be implemented as well as times the outages were to be expected. This meant that some areas would have load-shedding (cut-off), while others would not and this would be staggered between areas to avoid a complete blackout of the whole country. Electricity outages outside the load-shedding schedule were not regulated, and without clearly communicated timelines of outages, online learning would be negatively impacted. Results in Table 5.23 indicate students' responses on the availability of electricity, excluding when it was load-shedding. Only 31% of responses indicated electricity was 'always' available, with 33.8% responding 'sometimes'. As outage periods outside the load-shedding schedule were not known, class attendance and keeping up with schoolwork would have been negatively impacted. The survey did not include open-ended questions on this item, but the qualitative survey provides details on this data.

The next items assessed were data, fibre network (Wi-Fi) access and VPN. The analysis on these items starts with data and Wi-Fi, then continue to explain VPN, as well as present results. Wi-Fi connectivity can be accessed through privately-owned fibre, university Wi-Fi, or public Wi-Fi. The frequency of availability of these connectivity options returned positive results (sometimes, often, or always) with 55.2% of students indicating that university data was always available. Network providers in South Africa, together with HE, CHE and DoE, announced mechanisms to allow online learning access to universities by offering data for learning and zero-rated academic websites (Council on Higher Education, 2020:4). The data presented in Table 5.23 regarding availability of university-funded network data or connectivity, recorded low scores for the availability of VPN (32.7%=never), with 26.2% indicating 'N/A'. This raised the possibility that students may not have enjoyed the benefit of zero-rated access to university websites and access to learning resources as planned by HE.

Table 5.23: Frequency of availability of resources for online learning and connectivity (N=145)

Frequency distribution	N/A	Never	Seldom	Sometimes	Often	Always
Electricity (when not load shedding	2.8	5.5	2.1	33.8	24.8	31
Fibre network	12.4	10.3	8.3	30.3	18.6	20
Personal cell phone data	0.7	4.8	9.7	35.2	24.1	25.5
University provided data	0	5.5	0	12.4	26.9	55.2
VPN	26.2	37.2	7.6	18.6	4.1	6.2
University learner management (LMS)	11.7	11.7	6.2	22.1	20	28.3
University e-mails	2.8	4.1	1.4	20	28.3	43.4

The Global protect VPN?? was a solution implemented by UoTs and HE in collaboration with network providers in South Africa, during the height of remote learning in 2020 (CPUT, 2020; CUT, 2020; TUT, 2020) to zero-rating academic institutions' websites to assist students gain access to universities' websites for free. The DHET SA survey (2020b:51) reported responses as follows:

"Well, the use of the app called Global protect has assisted me a lot, I could save my data when connected to Global protect VPN, I could also connect securely to the internet and download important files from the school",

"The university developed us to be technology wise and we had data and used the zero rated app which is VPN so that we can be able to access blackboard even if we don't have data",

"VPN saved money in buying data. Using a smartphone is easy and quick and you get to do your work anywhere as long as there is a data" (DHET, SA, 2020b:51)*.*

Since access to VPN was highly limited to non-existent for most students, as shown in Table 5.23, this could potentially be a limitation to remote learning. Future studies could evaluate spending patterns of UoTs' Tourism management students to determine and quantify financial implications on learning during lockdowns.

5.5 Summary

Chapter 5 provided a summary of the processes followed in the treatment of data for analysis and presentation correlations. Presentation and discussion started with profile of tourism students, followed by academic point. Results indicated that Tourism students have varies learning references displayed in the on-campus learning environment, as well as in remote

learning context. Tutors in both on-campus and remote learning are considered as critical support systems. Results also depicted a high level of student participants who prefer to reside close to their campus of study, event during strict lockdowns that enforced purely remote classes. Issues of access to the library, physical or remote facilities also indicated critical findings in relation to preference for use, ease of access and availability. Lastly, study findings presented student perspectives with regards to online connectivity, as some of the impacts to academic success during remote learning. Qualitative findings of the focus group interviews are presented in Chapter 6.

CHAPTER 6

PRESENTATION AND INTERPRETATION OF FOCUS GROUP FINDINGS

6.1 Introduction

Chapter 5 presented the quantitative online survey results. This chapter presents the qualitative results from focus group interviews, which are discussed in themes based on the objectives of the study. The chapter outlines issues on data collection and analysis process, followed by the process to ensure reliability, validity and trustworthiness of the collected data. It continues with presentation of the findings of the study. The chapter that discussed the results (Chapter 5) clearly indicated the attrition levels from the discussion on results of Section A to E. The invitations to participate in the study clearly indicated the two-pronged approach of the survey followed by focus group interviews. With that noted, regarding the collection of the qualitative data, the focus group interviews attracted nine participants, but the ninth participant was unable to fully participate in the focus group interviews due to load-s1hedding (power outages) in her area during the process.

6.2 Validation of study results

To ensure validity of the data, all aspects that could impact the results, such as issues of cellular phone data availability for students to participate in discussions and limitations of inability to invite students for face-to-face discussions, were considered. The discussion in the chapter indicates elements of rigour in the study from data management, which speaks to the credibility of the process, and sampling, the in-depth descriptions of interviews regarding transferability, the use of programmes in assessing data to determining the dependability of the data. Transparency of the qualitative process to confirm the reliability of the data and process, including the management of collected focus group data, was addressed. These are critical steps towards indicating the rigour of qualitative studies (Brown et al., 2015:831).

6.3 Framework approach to data collection and analysis

The explanatory-sequential approach to the research guided the collection of quantitative data as well as the analysis and interpretation of that process, followed by collection of the qualitative data and its analysis. The survey instrument was based on the main study objectives as elements that would require further probing. Further, the sequential data collection approach allows for quantitative data to also guide the design of the qualitative data to be collected, which was done in this study with the main themes of data to be collected. From the onset of the research project, it was essential for information to be selected from the quantitative data as exploring reasons behind students' responses was critical (Wilson-Strydom, 2012:192; Dawadi et al., 2021:30). Self-reflexivity was an essential aspect that

influenced decisions of which data was critical for the study. In Chapter 2, the researcher's link to the study as an academic was presented to highlight awareness of the level of bias that could influence the study. In terms of qualitative studies, this bias is critical where context is critical for the analysis of data. As a researcher, understanding the level of objectivity in assessing and presenting study results is critical in providing a true reflection of the study results (Creswell, 2014:37; Farrow et al., 2020:51). As a qualitative researcher, positioning oneself from an academic perspective with experience of the study site allows for improved contextualisation of the data (Creswell, 2013:42). The role of the researcher from a pragmatic point of view implies that "the researcher's values play? a role in interpreting the results" as the researcher adopts both the objective and subjective points of view in the process (Wahyuni, 2012:70).

6.4 Collection of qualitative data and analysis

Focus group interviews were conducted via Blackboard Collaborate, which is an LMS system used by the Cape Peninsula University of Technology, where the researcher is an academic. The software/programme was selected for its security features to conduct online interviews, which were set up in the format of a virtual meeting where a link was generated after scheduling the virtual meeting. One other good feature is that the software allows for anonymity of participants, who only want to be identified with a pseudo name to be able to change their name before entering the online meeting room. This allows for improved comfort levels for participants.

For participation in the focus group interviews for this study, initial invitations to participate were sent via identified academics at the participating UoTs. Students who wanted to participate in the focus group interviews could direct their interest to participate via the researcher's e-mail address that was available on the invitation flyers. Once initial communication was made, logistical arrangements were communicated directly to volunteers for the respective focus group sessions. Participants were allowed to enquire further on any aspects of the study before participating in the focus group interviews.

The study sample for the qualitative phase included N=8 voluntary respondents (initially there were nine participants, but the respondent from the DUT had to withdraw due to technical challenges), distributed as follows: four from TUT and four from CPUT. After numerous attempts to attract participation from CUT, no student volunteered to participate in the focus group interviews (see Appendix D: Invitation to participants for online survey). Although challenges with data collection were experienced, the data collected was critical to the study due to in-depth discussions and the feedback students provided based on the explanatory-sequential approach, which allows for the qualitative data to further explain responses from the quantitative survey, indicating that substantial data would have been collected and

discussed already from the quantitative surveys (Creswell, 2014:44). A study by Ivankova and Stick (2007:98), which followed a similar explanatory-sequential approach, functioned with only four participants. A systematic review of qualitative studies by Brown et al. (2015:823-826) assessed mixed methods studies recording (QUANT-qual), also known as explanatory-sequential studies, that included eight participants with other studies in the same content analysis including 10 to 31 interview participants (Brown et al., 2015:823-826). The depth of analysis in the studies was the main factor in the decision regarding the total number of participants. The aim of this study was to recruit about six participants per institution, but due to challenges (including the Covid-19 pandemic, limited access to face-to-face tuition, and flooding in KwaZulu-Natal) that occurred during data collection, participation was severely limited.

The interview sessions took about an hour to an hour and a half, and recordings were captured on the LMS system for downloading and transcription. The TUT session was marred by technical glitches, where one participant was able to join, but lost connectivity, so the interview continued with only three participants. On the day of the CPUT focus group interview, unscheduled load-shedding (electricity blackouts) was implemented, which interfered with the sessions and the recorded session was lost. The CPUT participants, through e-mail communication with the researcher, opted to send their responses via e-mail (see Appendix F: Request for CPUT interview to be converted to e-mail post lost connection due to power outages) as further suitable sessions could not be organised. As the research was restricted by time limitations, further sessions were impossible. An argument had been put forward that in-depth email interviews were a viable form of data collection that should not be ignored (Wertz et al., 2011:51; Fritz & Vandermause, 2018:1646-1645).

The recorded TUT focus group session was transcribed with an online transcription programme, Descript.com, which is an audio and video editing platform. The transcription was cleaned and saved in Microsoft Word document format. All transcripts or recordings and e-mails were uploaded to Atlas.ti 22 for analysis. Deductive and inductive coding was applied in the analysis process as predetermined codes from the drafting of the interview schedules were already designed prior to analysis (Kenaphoom, 2021:660). Some codes emerged from the interviews as in-depth discussions revealed certain aspects that were unidentified in the design process, but regarded as critical observations for the study (DHET, SA, 2020b:12).

6.5 Data presentation and discussion

Data was extracted from the main questions in the focus group interviews. They are presented here with quotations following discussion framed by the main themes. The four themes presented in the forthcoming discussion, preceded by a profile of the study participants.

6.5.1 Profile of participants

University/level of study/course choice and enjoyment: A challenge common to the participating UoTs, based on students' willingness to participate in the focus group interviews, was the reluctance of first-year students to participate voluntarily. In an effort to improve the participation of this group of students at each participating UoT, a special invitation was also sent out to first-year students to participate in the interviews, but students were still reluctant to accept the invitation.

Students who voluntarily responded to the invitation included second-year, third-year and fourth-year students. Three respondents were recorded from TUT, while four participants from CPUT were present on the day of the online focus group interview, but the session was disrupted by load shedding and certain members experienced power cuts in their areas during the focus group interview. An attempt to reschedule the session was unsuccessful and all four CPUT participants volunteered to respond to the interview via e-mail. Quotations from student-participants in the discussion are referenced with document codes. Each document was loaded onto Atlas.ti 22 and saved with a particular name as an identifier, for example, 'TUT Focus group interview' to identify the transcript and 'ABE_CPUT' to identify the e-mail responses, since CPUT students responded by e-mail and documents were saved with pseudo names. Students from TUT participated in one interview, quotations of which are referenced as 'TUT Focus group interview'. The numbers linked to each reference represent sections in the documents where the quotations are located. All referenced information was created automatically by the programme during the coding process.

6.5.2. THEME 1: Preference for remote class vs contact or face-to-face class

This section of the study focused on comparison of preferences for remote versus contact classes by students, with the analysis focused on the impacts of Covid-16 era learning on students' learning preferences as well as impacts on attendance behaviour.

6.5.2.1 Type of online class preferred

Preference for contact and online classes was a split decision in the quantitative study. The focus group interviews also indicated a similar split preference among students. From the CPUT cohort, N=3 participants indicated a preference for online classes, with N=1 participant indicating a preference for face-to-face classes. Responses from TUT indicated N=2 respondents' preference for contact-classes, and N=1 indicating preference for online classes.

The reasons suggested for preference for face-to-face contact classes were linked to interactive activities of classes, immediate access to, and feedback from, lecturers, as well as drawing attention to the challenges online classes pose, which could be reasons that impact preference for online classes:

I also prefer like face-to-face contact classes because that's when you get to actually interact with the lecturer and also the students, (sic) and also be like, I don't know. I think when you are like in an online class, you are more comfortable and then you also take the advantage of maybe it's gonna (sic) be recorded. So what's the point of attending it. If you can get time, you want it, but when it's contact, like you don't have a choice cause (sic) they can't record every learner there and stuff (5:5 ¶ 58 in TUT Focus group interview)

One thing I can say is that I've, I think I've always preferred doing things the traditional way. So obviously I'm going to take the one for contact classes, reason behind me saying that it's because, you know, I always think that I studying online promotes laziness (5:6 ¶ 60 in TUT Focus group interview)

I would prefer face-to-face classes. Face-to-face lessons are more engaging and challenge you to take initiative, you become more hands-on, and the environment is completely different from that of online classes. They also allow for instant communication and make it simpler to reach the lecturer. With online classes, there are numerous technological problems and internet connectivity challenges that could impede productivity. With face-to-face instruction, lecturers are better able to assess student's comprehension and interest, and it is simpler to incite collective enthusiasm for a subject (1:1 p 1 in Abe_CPUT)

Respondents who indicated preference for online classes pointed to flexibility classes offer students, and the opportunity to have recorded sessions that could be referred to, which face-to-face classes do not have. An issue linked to economic reasons was the limitation of travel to campus given as a reason for preference for online classes:

I prefer online classes, Internet-based classes are offered synchronously and/or asynchronously, online classes provide opportunities for flexible schedules, learning from home and we get opportunities to use our computers and choose a different range of classes (2:1 ¶ 3 in Prom_CPUT)

Online, reason being, for online it also has recording, you can easily go through something over and over again if you missed it on (sic) the class (3:1 ¶ 3 in Sipo_CPUT)

I would personally choose online classes because there are no transportation fees involved (4:1 p 1 in Tan_CPUT)

While one respondent did not enjoy online classes, the respondent pointed out the benefits online classes provide:

I actually do not prefer online sessions. I do not enjoy them at all, but they only have one benefit of which you can go back to the session if we probably didn't hear something correctly, but I do not enjoy them at all, but they literally did. Didn't make any change on probably my results to say (5:17 ¶ 79 in TUT Focus group interview)

Further discussion on the preference for online versus face-to-face classes indicated an issue where respondents felt online classes created a sense of complacency, and a sense of not being in a learning environment when attending remotely, with the participant stating:

I am, I'm a busy person, but I'm busy with nothing. I don't know. It makes sense. So me sitting on a table and like listening to a lecture, it's kind of like, not for me. So I would be like, okay, put the laptop on speaker and then continue doing whatever I was doing before I attended the class. But when…. in a contact class, I feel like now we are, (sic) *now we are talking.* (5:84 ¶ 259 in TUT Focus group interview)

Learning in a remote setting was neither seen as ideal nor an option that allowed for conducive learning by one participant:

They're like they don't see me. I don't see them. So no one will know, (sic) *they continue with their lives. But if it were like a contact, we would be now reverting to the, of last module (sic). So remote learning is not the one for anything and stuff, so remote learning is not the one for me* (5:26 ¶ 105 in TUT Focus group interview)

6.5.2.2 Impact of remote learning on studies

A question was posed to student-respondents on what impacts they thought remote learning had on their studies. As the results on preferences for online or remote classes, discussed in Chapter 5 noted a split decision, it was critical to further probe what students considered the reasons that informed their perspectives of online//remote classes. Respondents' answers to this question included some positive and negative viewpoints, where they considered impacts on their preference for remote or contact (face-to-face) learning. To assist in reflecting on the main impacts students indicated for remote learning on their studies, the results shown in Table 6.1 represent verbatim statements, which were further analysed and categorised as follows:

- Quotations that were selected using the code 'impact of remote learning' were further analysed.
- Emerging quotations from the analysis were further coded (provided with summary statements) to provide context to the meanings of quotations, and
- Codes (summary statements) were grouped into the following themes: online classes (positive and negative views) and contact classes (positive and negative views (Table 6.1).

Students' perspectives related to issues of flexibility of online classes, extended access to class recordings, and awareness of self-development, which were positive views of online classes. Negative aspects of remote learning mentioned were technical issues with remote learning; unsuitability of the online class environment; issues of limitations to social interactions, including with lecturers and fellow students and incompatibility of certain subjects for remote learning. A study by Twesige et al. (2021:156-157) in Rwanda on the impacts of Covid-19 on learning also presented similar results to this South African study with social interactions as a negative impact to remote learning, while the DHET SA (2020:49) study report

highlighted issues of flexibility with students related to online learning. On views shared regarding contact classes, respondents indicated social aspects with lecturers and fellow students as positive impacts, which were critical aspects raised by Mpungose (2020:2). Limited social interactions due to remote learning could indicate less focus on active learning, which is a tool that gives rise to higher-order thinking and critical thinking skills (Celestino & Yamamoto, 2020:19), critical for university graduates.

Of the views shared regarding contact classes, inconvenience of timetabling was considered a negative impact. Another aspect was the issue of transportation discussed in Section 6.5.2.1, with a comment indicating that online classes assisted with saving on travel costs: *"I would personally choose online classes because there are no transportation fees involved"* (4:1 p 1 in Tan_CPUT). In the literature review, the issues of socio-economic backgrounds (Section 2.3.3.1) and timetabling (Section 2.3.3.2) (Larabi-Marie-Sainte et al., 2021) as factors that impact the learning environment were explained. Another negative aspect was the effect of attendance on campus-based classes (Kelly, 2012:30; Almeida et al., 2015:675). Considering that the focus of the question was mainly on remote learning, responses from students included these perspectives on contact classes, which indicated that these are also factors that require attention in programme design.

The issue of 'incompatibility of subjects for online classes' is one that should be addressed with considerable care on what qualifications are deemed unsuitable for pure remote learning, as can be seen in Table 6.1, where some Tourism Management subjects require face-to-face tuition, and, therefore cannot be exclusively offered online teaching. In their paper on the context of learning in the 4IR, Dlamini et al. (2021:37) state *"that different technologies only affect the efficiency of the delivery of instruction, but in effect, it is the content and method of instruction that affect learning"*, which is true given this discussion. Thus, in adopting policies and guidelines that implemented for remote learning during the Covid-19 period, different faculties/departments should have considered effective design for content delivery in programmes.

Table 6.1: Perspectives on impacts of remote learning students

Remote learning	
POSITIVE views	
Flexibility and independence	*"Independence: It has taught me independence, not relying on what the lecturer offers, but going above and beyond to ensure that I take charge of my own learning"* (1:3 p 1 in Abe_CPUT)

	"Flexibility: With online learning, I can set my own learning/studying pace. I also have the ability to multitask. For example, in 2020, I participated in the institution's international exchange program, where I took online classes with Osnabrueck University in Germany. This allowed me to attend classes at both my home university and Osnabrueck without having to travel to Germany" (1:3 p 1 in Abe_CPUT) *"Online classes provide opportunities for flexible schedules, learning from home and we get opportunities to use our computers and choose a different range of classes" (*2:2 ¶ 3 in Prom_CPUT) *"Yes it has… in a sense that it taught me self-independence and time management and how to push myself towards studying" (*3:2 ¶ 4 in Sipo_CPUT)
Extended accessibility to classroom	*"I think when you are like in an online class, you are more comfortable and then you also take the advantage of maybe it's gonna be recorded. So what's the point of attending it. If you can get time, you want it, but when it's contact, like you don't have a choice cause they can't* (sic) *record every learner there and stuff" (*5:5 ¶ 58 in TUT Focus group interview) *"Obviously you'll have access to, to the recording when you have the recording, when you feel like not the lecture (sic) is just talking about things that I don't hear, you just pass and end up missing important information. Right. So even the reason I'm saying it promotes laziness it's because, um, it's just like writing online" (*5:8 ¶ 61 in TUT Focus group interview)
Learning and research skills	*"Remote learning have* (sic) *impacted me in a positive way because now I'm more vigilant in making researches and I'm spending most of my time on internet".* (4:2 p 1 in Tan_CPUT) *"Good, in online learning, students are not limited to one and two sources. They can watch documentary videos, they can learn Wikipedia, they can learn from the blog, and they can do online courses".* (2:3 ¶ 5 in Prom_CPUT)
NEGATIVE views	
Technical issues	*"With online classes, there are numerous technological problems and internet connectivity challenges that could impede productivity"* (1:2 p 1 in Abe_CPUT) *"Some don't have me data network problems (sic), and there's nothing that can be done about that. So I think a remote learning there's a bad negative impact in our learnings because student are (sic) starting to lose forecast "* (5:24 ¶ 98 – 99 in TUT Focus group interview) *"Our loadshedding schedule is very inconsistent and inaccurate; we might expect it twice a day but get it four times, which has an impact on learning"* (1:10 p 2 in Abe_CPUT) *At my res, we're experiencing, problems with* [electricity] *but it's not loadshedding, because last week,* (sic) *the whole last week,* [we] *didn't have any electricity. So I guess I didn't attend any classes, my phone, my laptop off each and everything was off"* (5:54 ¶ 163 in TUT Focus group interview)
Unsuitable class environment	*"One other thing about learning online, like, okay, if there are maybe more than hundred of students* (sic*) in one session online, it's not easier for us to ask questions if I'm not, or if I'm confused about something".* (5:4 ¶ 56 in TUT Focus group interview)

	"I always think that I studying online (sic) *promotes laziness. Um, like when you actually going to study online, you can just join the session and sleep. If you want to sleep, do whatever that you want to do or continue with the cause of the day".* (5:7 ¶ 60 in TUT Focus group interview)
Limitations regarding access to lecturers	*"Even if I may ask question or email the lecture, it might take time to respond, (sic) on whatever I ask. And if I ask something now and the lecture respond me* tomorrow (sic)*, I maybe lose focus or not attend to whatever I wanted to know about that question"* (5:4 ¶ 56 in TUT Focus group interview)
Lack of social interaction	*"…and one other thing, uh, doing things online and there is a lack of social relationship might find out good (sic). I don't know my lecture (sic), my classmates"* (13 ¶ 68 in TUT Focus group interview)
	"…having to sit on a table, uh, for an hour, listening to a lecture (sic) talking, you can't even respond" (5:23 ¶ 90 in TUT Focus group interview)
	"Yeah, I will say gore [that]. Before, at our first year, the first three months we attended contact classes. It was nice because we were social large making friends (sic). Like we, we were getting to know each other, but, um, there was" - hanging sentence/incomplete? (5:88 ¶ 270 in TUT Focus group interview)
Incomparability of subjects for online classes	*"…especially for the fact that we are doing, um, tourism. There are modules that we're doing calculations of (sic). We're trying, doing those modules online. It feels like we are actually not doing anything"* (5:7 ¶ 60 in TUT Focus group interview)
Contact learning	
POSITIVE views	
Access to lecturers	*"They also allow for instant communication and make it simpler to reach the lecturer"* (1:2 p 1 in Abe_CPUT)
Interactive sessions	*"I also prefer like face-to-face contact classes because that's when you get to actually interact with the lecturer and also the students, and also be like, I don't know. I think when you are like in an online class, you are more comfortable and then you also take the advantage of maybe it's gonna be recorded. So what's the point of attending it. If you can get time, you want it, but when it's contact, like you don't have a choice cause they can't record every learner there and stuff"* (5:5 ¶ 58 in TUT Focus group interview)
NEGATIVE views	
Inconvenient timetable	*"I have a class eight, eight in the morning, it's still cold. I can't wake up and attend class.* [Laughter by assessor*] So if I have to go to, to the campus, I must wake up. I must make sure good. I must go there and attend and I'll focus on*" hanging/incomplete sentence? (5:3 ¶ 55 in TUT Focus group interview)

Another critical element that emerged from respondents' feedback was the impact of remote learning on online assessments, which could be categorised as negative, based on the following statements:

When you (sic) *writing online, you know, that you can be able to copy. So you won't study. Unlike when you're writing a sit in test ...one writes online exams, then come the time for writing at campus, and we literally don't know anything"* (5:9 ¶ 62 in TUT Focus group interview)

"I think it has done a huge impact in my learning (sic). Just like just said about the referring to textbooks on your writing and stuff. And then like, since they like on like last year, We mostly had everything online (sic). *So we almost like, we all took the chance of like, okay, there's no lecture (sic), so we can take our textbook and like refer to it"* **(**5:14 ¶ 71 in TUT Focus group interview)

As the discussion on preferences for assessments was limited to preferences related to preparation for assessments, the discussion on participation in online assessments was outside the parameters of the study. No further discussion was conducted on this matter beyond the responses students provided in Table 6.1 as the comments on the impacts of remote learning and online assessments were observed. It is important to note the requirement for a critical review of this phenomenon, as other studies have referred to online assessment-cheating as a critical challenge in HE (Rothman, 2016:3; Council on Higher Education, 2020:21; Pavlik, 2020:6; Coetzee et al., 2021:21).

6.5.3 THEME 2: Learning and support structures during remote learning

Theme 2 discusses students' preferences related to learning preferences, how respondents prepare for tests and examinations, actions and preferences related to preparing assignments, and what support services or mechanisms students prefer to use as academic support. Some quotations emerged relating to gender differences that are discussed in this section.

6.5.3.1 Students' learning preferences related to new content

Students' preferences during remote learning were assessed in the interviews. Participants were asked what action they would take when learning new content. Study preferences were investigated in Chapter 5 (Section 5.4.2) within Kolb's learning style inventory (KLSI), based on the following learning styles: divergers, assimilators, convergers and d accommodators (McCarthy et al., 2002:1.5; Seger & Van der Haar, 2011:57), as defined in Chapter 3, Section 3.3.2 and Chapter 5, Section 5.4.2.5.

All responses pointed to a preference for 'diverger' learning as respondents indicated that they conducted research on new content before either attending class or discussing elements they did not understand with peers:

"I first conduct my own research, visiting various sources to gain an understanding of the concept, and if I find it difficult to understand, I ask the lecturer to explain it further" *(*1:12 p 2 in Abe_CPUT)

"when actually introduced to a new concept, (sic) *um, I, I prefer actually studying or actually doing some revision before class"* (5:64 ¶ 185 in TUT Focus group interview)

"I …do like a research on the topic first ….. when we go to class and then after we get, the lecture (sic) side, I can basically enhance more (sic) *of what I've done on my research"* (5:66 ¶ 190 in TUT Focus group interview)

"So before I went to the class, I make sure gore [that] I must study that chapter and attend last while I know something (sic) *in case, uh, I didn't understand"* (5:67 ¶ 194 in TUT Focus group interview)

Self-study then if I am struggling (sic) *with something then I'll just text or WhatsApp that specific lecturer for clarity* (3:11 ¶ 13 – 14 in Sipo_CPUT)

The results indicate preference for the 'diverger' learning style, which is similar to the results in Chapter 5 (Section D) pointing the fact that students were drawn towards the face-to-face, or rather interactive components of the blend, as can be deduced from the verbatim extracts. This is a critical aspect of blended/hybrid curriculum model design, which indicates an inclination towards students' dependence on an environment that assists to cement their learning process. This finding is similar that of studies conducted by Graham (2013:18) and Smith-Labrash (2010:35). Based on Kolb's theory, results depict students immersing themselves in the content and want to make connections with the content, where the step is followed by reflections through lectures or with peers (McCarthy et al., 2002:1.5). Romanelli et al. (2009:4) make an interesting observation in their study, although its findings contradict the results of this study. The authors observed there was a high preference for 'accommodators' in their study group and also pointed out that their results indicated students who identified as 'divergers' were least satisfied with the problem-based learning PBL method of instruction that was implemented.

6.5.3.2 Study preferences related to preparing for tests and examinations

The discussion on preparing for tests and examinations during remote learning presented varying results. This section, unlike other sections of the interview, did not reach saturation (Maddock & Maroun, 2018:198). In grounded theory research, the point of saturation is achieved when data collected from samples stop offering new findings as the findings are found to be similar from one respondent to the next (Creswell, 2014:239). Deductive analysis is used in qualitative data analysis to determine similarities in text, based on a code. Under this question on preferences related to preparation for tests and examinations, students' responses were varied and minimal threads or sub-themes could be developed from the data. Killingback et al. (2020:6) note that this could be attributed to a low number of responses, while Bhattacherjee (2012:106) warns that no matter the reason is for this phenomenon, critical, diverse viewpoints should not be ignored as they provide in-depth insight into students' study

preferences (Creswell, 2014: 179; Ivankova & Stick, 2007:108). Student responses to this question are discussed next.

Reponses on preparation for tests and examinations included students preferring to use revision exercises and puzzles as tools to study, while another respondent indicated preferring to study alone articulating reasons for the preference:

> *"I make my own study notes, which allows me to assess my level of understanding. I also make summaries and occasionally take quizzes. I then use the lecturer slide to guide me and keep me on track"* (1:13 p 2 in Abe_CPUT).

> *"I prefer to study alone, studying alone allows you to set the perfect study environment so you get the most out of studying. Studying alone also allows you to use the study tactics that are the most effective for your learning style"* (2:12 ¶ 30 in Prom_CPUT)

Other respondents, however, indicated preference for study groups, with one respondent indicating the use of mentors or tutors as available support services:

> *"When I'm actually studying for my exams,* (sic) *I, do study in groups. I actually use the help of, of tutors and mentors since we have them in our department"* (5:68 ¶ 199 in TUT Focus group interview)

> *"I study alone and one thing that we do, at our class, …Before, there is a test, we make sure <u>gore</u> [that] we arrange a contact class for us, where we may pick someone to clarify us each and everything that you, what you understand"* (5:69 ¶ 201 in TUT Focus group interview)

There was also evidence of preference for both options, with one participant indicating that, although they preferred to study alone, closer towards the examination date, they would join class group discussions as part of their revision exercise. This preference is also indicated by Owston et al. (2019:33) who state found students' preference for blended formats of studying:

> *"I would prepare to study on myself,* (sic) *but like…when they do the group session thing, I will come. They organise a class before the test and be like, okay, there's a class. Are you gonna do* (sic) *for this module?"* (5:70 ¶ 205 – 206 in TUT Focus group interview)

Another important comment that emerged from the discussion was the importance of translating study notes into one's home language to clarify concepts to be learnt. This was a finding identified by McGhie (2012:119) as students are content to learn complex concepts in a second or third language (Mkonto, 2015:223; Bosman & Schulze, 2018:2). Participants' responses in a study by Dison et al. (2019:86) indicated how pedagogic practices from high school to HE differ with the use of home language for instruction as English is the language of instruction in HE institutions in South Africa (Campbell, 2013:5). The challenge for higher education, as indicated by the latter authors, is the vast differences of culture and nationality of HE student populations:

"…when you're writing a test, it is much easier to translate something that, you know, in your language (sic) *you know? So it helps in those ways that when you are working in groups, you are able to ask your peer a question"* (5:61 ¶ 179 in TUT Focus group interview)

6.5.3.3 Emergent data related to issues of vulnerability

Linked to the previous discussion of students' preferences for blends of learning, the data also suggested a sense of academic vulnerability students experienced. Two issues of concern emerged from the data linked to student vulnerability, one related to students' self-esteem and the other to a perception of gender bias. One participant's response indicated preference for studying alone, linking it to a lack of self-esteem and further indicating a sense of safety in a group without having to expose one's level of knowledge:

"I don't know. Ma'am if I should call it, it a disorder or what? (sic) *I don't easily go to a person and approach them. Like, can you please assist me on this thing? I feel like I'm weak. Or maybe I'm not that smart, so then I would prefer to study on myself (sic).. but when they do the group session thing, I will be fine. I know I didn't ask to do it, but it's there and I'm gonna use it"* (5:70 ¶ 205 – 206 in TUT Focus group interview)

For Zhou et al. (2020:115), lack of self-esteem could negatively impact students academically. Dlamini et al. (2021:119) attribute lack of self-esteem to the inability of students to articulate themselves due to language barriers. This was also a finding by the Council on Higher Education (2010:86) report, which evaluated issues of access and success in HE. Some of the issues of vulnerability came as a surprise during discussion as another respondent linked their vulnerability to their perception of gender bias, saying:

Unlike, when it's a lecturer (sic), *you are afraid that you* (sic) *I've got a low self-esteem. I might ask a question, then they might just snap me and everything, you know, and probably student might laugh at my English or whatever I'm saying. So let me just not ask. And it's a group, you know, everyone is sharing this, everyone is sharing this and you are able to actually speak out and say that I don't understand this"* (5:62 ¶ 180 in TUT Focus group interview)

"I don't have study group. As boys, we don't do such. It is difficult for me to, (sic) *to maybe to call someone and say please help me, even though I do side sometimes, but not always. So I study alone and one thing that we do, uh, at our class, …before there is a test, we make sure gore [that] we arrange a contact class for us, where we may pick someone to clarify* (sic) *us each and everything that you, what you understand. So it's much easier for us to communicate and share information that we know"* (5:69 ¶ 201 in TUT Focus group interview)

Based on these statements, it could be assumed that added to challenges with language, gender stereotypes also tend to be used to mask vulnerabilities (Henning et al., 2019:8-9) where self-esteem seems to be a barrier to learning (Bosman & Schulze, 2018:2). To evaluate this phenomenon, students were asked if they preferred to work in a group or individual assignments. The results are discussed next.

6.5.3.4 Type of assignments preferred

An interesting observation with responses to the question on the type of assignment preferred (group or individual), all N=4 participants from CPUT indicated preference for individual assignments, while N=3 participants from TUT indicated their preference for group assignments. These views were supported as follows:

CPUT responses, which were directed towards preference for individual assignments, included the following:

> *"Group assignments are the absolute worst. I understand that we are being prepared for real-world situations and for the ability to collaborate when working in a team in the workplace, but working in a group result in conflicts, which may arise from non-communication, others putting little to no effort, and having different standards in producing quality work. I always finish an entire assignment by myself. As a result, I prefer individual assignment. Also, I tend to have high expectations for the degree of dedication and effort from my group members. When these expectations are not met, I get frustrated, which is why I prefer to work alone"* (1:14 p 3 in Abe_CPUT)

> *"Students can increase and enhance their mental and imaginative skills by writing their own assignments"* (2:13 ¶ 31 in Prom_CPUT)

> *"Individual…groups are the worst cause there's certain individual that will need to dragged* (sic) *and less participate but get the same mark as those ones who were pulling through"* (3:12 ¶ 15 in Sipo_CPUT)

> *I prefer individual because group mate* (sic) *can disappoint you on the last minute" (4:12 p 1 in Tan_CPUT)*

TUT responses, which contradicted CPUT statements, presented the following reasons in preference for group assignments:

> *"I actually prefer group works* (sic), *but I want to be the one to actually choose the group members of my assignment, because I literally know everyone in my class and I know who is competent. Who's not competent, who is reliable…when I'm doing it individually, I think it's just me, fighting against my own opinions on, on my own, in my mind"* (5:71 ¶ 214 in TUT Focus group interview)

> *"I too prefer group as group assignments because we, like, we get clear understanding on what the assignment is about. And I feel like it's also less work in a way. And I don't know. Chances of it being like a good product, a good assignment that like you, all the thing that was needed is they are higher than when you're doing it on your own"* (5:73 ¶ 221 – 222 in TUT Focus group interview)

> *"One of the greatest things about working in a group is that you share tasks amongst each other. That is like load of way to lift it on your shoulders. That you know that at this point in time, this is what I'm supposed to focus on"* (5:74 ¶ 227 in TUT Focus group interview)

It could not be determined whether these responses per university were coincidental or linked to certain variables on how group assessments are conducted at the various UoTs. One strong

observation is that, based on responses to vulnerabilities shared by students in the interviews, it is evident group assignments could be viewed as beneficial to students who are aware of their academic challenges, while students who perceive themselves to be academically strong, prefer individual efforts. The assumptions of this data are that intrinsic factors play a critical role in online academic participation of students at UoTs and that students' academic study and learning patterns are not necessarily shaped by extrinsic factors (Singh, 2016:3; Henning et al., 2019:2; Dlamini et al., 2021:49).

6.5.3.5 Emergent data regarding online assessments

The discussion on writing online assessments was not within the boundaries of the study, but it was an interesting finding that needs to be highlighted. Online assessments have been discussed as an issue of concern (Council on Higher Education, 2020:21; Pavlik, 2020:6) regarding quality assurance (Cleveland-Innes & Wilton, 2018:34; Council on Higher Education, 2020), design (Germaine et al., 2016:108-109), and assessment feedback (Semley et al., 2016:47-48). This top-down approach requires a blend of user-experience feedback to be able in order to assess the achievement of systems put in place for online assessments. A focus group participant, in a response, identified a critical issue of preparation for hybrid/blended learning, stating: *"…..one writes online exams, then come the time for writing at campus, and we literally don't know anything"* (5:9 ¶ 62 in TUT Focus group interview).

The participant went elaborate on personal experience taking online assessments and indicated that: *"when you writing* (sic) *online, you know, that you can be able to copy. So you won't study. Unlike when you're writing a sit in test"* (5:9 ¶ 62 in TUT Focus group interview). This highlights challenges with online cheating. Debates in the literature have highlighted the issue of investigating systems that could be put in place to limit online-cheating (Rothman, 2016:3; Coetzee et al., 2021:21), which could also raise debates on what online assessment should be. Comments from the focus group interviews raised important points that could lead to a proper investigation of what blended/hybrid teaching and learning assessments mean, as well as how they could be implemented. These comments form the basis for consideration of designing hybrid/blended learning models, and management of online versus sit-down examinations, which begs the question: what will be taught online and how will preparation of students for all forms of assessments (online or sitdown) be managed? (Saichaie, 2020:100; Fry et al., 2021:56).

These insights from the data and discussion presented on Theme 2 will, hopefully, assist in developing frameworks that could help in designing learning environments, remote or on-campus, that support, especially, students who feel less empowered in taking control of their studies as it would be beneficial to their academic journeys. Dison et al. (2019:89) define the

term 'student agency' as considerations of how academics and faculties could assist students in their studies. Supportive mechanisms such as data support, tutor assistance, and guided collaborative work should become an integral part of the hybrid/blended programme design, mostly where issues of self-esteem in students are a challenge as it creates a barrier to academic success (Zhou et al., 2020:115). Brewer et al. (2019:1114-1115) identify this as a view to integrating initiatives to build students' resilience in HE as it is directly linked to students' mental health and well-being. Issues of academic support were highlighted in Chapter 3 (Section 3.6) as key drivers for the success of hybrid/blended teaching approaches.

6.5.4 THEME 3: Perceptions of university support services and facilities

The success of initiatives implemented by universities for students' academic success and mental well-being on- and off campus, is judged by their level of use, which would provide a clear picture or plan. This is true of initiatives provided for the user, in this case, the student who indicates their perceived benefits. Students were asked an open question about support services of facilities available to them during remote learning. Responses were articulated as a combination of perceptions and experiences regarding remote services and on-campus facilities. This pointed to a general use of physical campus facilities during remote learning and the perceptions of students on user-friendliness of campuses. Responses indicated that students used a variety of services at their disposal as multiple on-campus facilities as well as remote support services. Services and facilities identified are shown in Figure 6.1.

Students maintained they used services online or on-campus during the remote learning period, with on-campus services including the library, general campus grounds, computer laboratories as well as the calm surroundings for a quiet time. One respondent said:

> *"I have this other section that I really like the most …which is the dam, the dam side. It's very peaceful. So there's this side where I usually sit with a bench. And like, you can actually kind of think of everything"* (5:45 ¶ 143 in TUT Focus group interview)

This was a profound statement taking into consideration that remote learning could have exacerbated the situation (Mthethwa & Luthuli, 2021:98) and that the home and campus environments are not necessarily built to reduce or mitigate issues of mental health. Green spaces on campus grounds, although they exist to some extent, are not a high-priority issue (Rickes, 2016:38), but could have benefits for mental health as well as improvement in learning (Germaine et al., 2016:68). Cilliers (2019:14) and Celestino and Yamamoto (2020:181) argue strongly for the benefits of green infrastructure beyond the perceived luxury. Mental health is an issue that has been recorded in academic papers (Council on Higher Education, 2010:72; Henning et al., 2019:9; DHET. SA, 2020:48) for which innovative solutions are required in HE (Naidoo & Cartwright, 2020:12-13).

Other responses on the design of campus grounds highlighted their lack of user-friendliness for students as an issue. This is expressed in the following extract: "… *the signage for new students who are trying to figure out the campus, and also for disabled people with the lifts and also what they have on the commerce building on the stairs to lift wheelchairs*" (3:6 ¶ 8 in Sipo_CPUT).

Two of the respondents from each participating UoT were mentors. It was interesting to observe their feedback on the service they offer to their departments and to take note of the facilities and services they use as mentors in assisting students. The CPUT respondent indicated how she used online counselling facilities, after a traumatic experience. This is an important note that tutors and mentors need close attention from the academics they work with to ensure their mental well-being, given the pressure of offering academic assistance services to departments, while being student themselves:

> "*For me, it's the flip side of the coin because I provide some of these services. I am a departmental tutor and mentor. I tutor first, second-, and third-year students and also provide mentoring. My services include online extra classes and career guidance, to name a few. However, last year I used an online counselling service, which was extremely beneficial because I needed support. I would rate that service an 8 because I received all of the assistance I required, the specialist was quite professional and had everything organised for each session, it felt safe to share, and I was able to recover from the trauma I experienced*" (5 p 1 in Abe_CPUT)

> "*I actually use the library tool, but not, not most often I use the library and since I'm actually part of the, student mentors,* (sic) *I usually use the, computer labs in building Six of which by not basically I'm using them, but I actually help students who have access to them*" (5:40 ¶ 127 in TUT Focus group interview)

Figure 6.1: Perceived UoT support services during remote learning

Source: Researcher's construct

These findings support the findings in Chapter 5 (5.4.4.1) highlighting the fact that UoTs offered considerable support with facilities and services for students during remote learning. The qualitative findings, however, indicated some limitations in the offerings relating to access and availability and showed that libraries were always not always available, and data and Wi-Fi connection for online access were not always reliable or available:

> "*…the wifi, it depends on what place* (sic) *you at like what section of the campus you are at. So it's also a five and then sometimes you find good. You have to go to the is (sic?) to attend the class or write an online test. Then the library is closed. Like, how is it closed when students are still like learning that the semester is not even finished, but the library is closed"* (5:31 ¶ 114 in TUT Focus group interview)

> *"…and another indicating challenges with transport to campus" (4:4 p 1 in Tan_CPUT)*

The findings in Section 5.4.1.3.1 (Chapter 5) on students' chosen place of residence during remote learning indicated strong preference to be close to their universities of study, even during periods of complete lockdown. These results indicated that students could access universities' premises for use of facilities and services on campus, even though this was not without certain challenges also presented in the findings. The findings shed light on the facilities and support services students preferred to use most, as well as perspectives on the user-friendliness of these facilities and services.

Based on this statement, "… *we have Wi-Fi hotspot places, you know that* (sic) *have good Wi-Fi. So probably when you need to attend or when you need to do something important, you can just go to this hotspot area and actually attend your class"* (5:35 ¶ 118 in TUT Focus group interview) and discussion in this section on the design of UoTs for hybrid/blended learning, there are positive points to be noted on the actions of UoTs to respond to recover from the devastating impacts the Covid-19 pandemic had on teaching and learning. There are also lessons decision- and policy-makers need to consider regarding insights on the responsiveness of campus and online learning to students' needs (Mthethwa & Luthuli, 2021:101). These reflections could provide a backdrop for considering which actions with potential positive impacts (for example, academic success and students' well-being) students wish to have, as well as what universities should do to achieve them (Swartz et al., 2018:60–63).

6.5.5 THEME 4: Design the perfect class experience

The last question for the focus group interview was another open-ended question asking respondents to curate their best university experience. The question asked was: "if you could design the perfect university student experience from an academic point of view, what would it look like"? The results, presented in summary format, indicated factors students considered

critical for the perfect university experience. These factor-responses ranged from preference for classes to offering of practical real-life scenarios, an indication of a blended class approach with some of the blends indicating a preference for face-to-face tuition, consultations or active learning scenarios to assist students with regard to access and alignment of classes to preferred blends:

Factor 1: Preference for classes to offer practical real-life scenarios, with career guidance: The respondents highlighted the critical need for institutions of higher learning to provide "early career exposure", with a need for suitably qualified students to be appointed as Tourism Management tutors.

> "*Early exposure to career training: The majority of students attend university in order to pursue a rewarding career. Institutions must provide students with relevant labour market data early in their university experience, such as in-demand skills, and educational requirements for specific jobs*" (1:16 p 3 in Abe_CPUT)

> "*One that defines and connects theory and practice: Most students appreciate learning experiences that clearly connect theory and practice because they make them feel more prepared for employment. Being taught by tutors with relevant professional experience enhances the learning experience*" (1:17 p 3 in Abe_CPUT)

> "*I want them to be like more interactive sometimes like to would like we are in class (sic). They actually for tourism in a really aspect,* (sic) *like in a real life aspect, you know*" (5:90 ¶ 279 – 280 in TUT Focus group interview)

Factor 2: Blended/hybrid approach, with preference for face-to-face tuition: Throughout the interview process respondents indicated a requirement for classes that offered personal or social connections face-to-face classes offered. In answering the question about the design of the 'perfect' university experience, respondents further cemented the notion that, although blended/hybrid tuition could be considered as a future mode of teaching and learning, there are benefits for students:

> "*…face to face that takes the crown a reason behind me saying that it's because it gives me more academically, socially, you know, practically and everything. So online just gives me, actually just gives me one benefit that I can attend and be able to actually see the recording later, but the benefits of face to face for me are so much, I'm very often extroverted person. So I, I believe in seeing people…So I believe actually also in engaging*" (5:81 ¶ 252 in TUT Focus group interview)

> "*… able to build social relationships with each other, know each other, be able to assist each other know can have anyone probably going through depression on their own. You're able to see that now my friend is not okay. Okay. You know, my friend is not at school. You're able to realise, unlike in an online class, a friend attend will be crying and still not be okay*" (5:83 ¶ 255 in TUT Focus group interview)

> "*I am, I'm a busy person, but I'm busy with nothing…So me sitting on a table and like listening to a lecture, it's kind of like, not for me. So I would be like, okay, put the laptop on speaker and then continue doing whatever I was doing before I attended the class. But when I'm in a contact class, I feel like now we are talking*" (5:84 ¶ 259 in TUT Focus group interview)

"Active blended learning, …this involves students discussing ideas, experimenting, working in groups, and receiving tutor feedback. This enables collaboration, flexibility, and accessibility on campus and remotely" (1:18 p 3 in Abe_CPUT)

Factor 3: Aid for students regarding access: Responses from the focus group interviews indicated three areas students viewed as critical areas of assistance:

- The first identified type of aid was career guidance, with the respondent stating that;

    "… what that means for universities is that there is an imperative need to provide students with aid and advice concerning what they want out of life. One of the simplest ways to do this is to give them career advice. Don't be tricked into believing the misconception that a professional career only starts after graduation. As early as their university years, students need to set themselves on the right path" (2:15 ¶ 36 in Prom_CPUT).

This finding compares to the survey results in Chapter 5, Figure 5.5 where students were asked if Tourism Management was their first-choice qualification, revealing interesting data on how some students' first course choice qualifications included nursing, education, paralegal studies, and policing. Career guidance as an intervention mostly happened in the later years of schooling could be an indication that a gap exists with regard to the knowledge students possess about career choices, even at the university level.

- The other two forms of support identified in the open-ended responses were assistance with study materials such as printing and study books, assistance with data for online connectivity and transport for access to campus:

    "Give some services free, such as textbooks, printing, photocopying bites, have transport allowances for the needy students that are off campus but all this in a monitored manner for misuse" (3:14 ¶ 17 in Sipo_CPUT)

    "I would design a school that have (sic) free transport for everyone and free internet" (4:13 p 1 in Tan_CPUT)

Factor 4: Tourism curriculum design for correct blends: The design of the Covid-19 response plan for academic institutions had a bias towards face-to-face teaching during the lockdowns, preferred to what was considered 'lab' subjects, clearly indicating that there were subjects which could not be taught remotely due to complex requirements for, for example, experimentation or development. As a consideration, Tourism Management curriculum designers could consider subjects unsuitable for online learning for the qualification when hybrid/blended models are put in place at UoTs:

"… there are just some modules that we can't do online. You know, those modules of calculations, we actually got a chance to do financial accounting. As, a module, we have tourism practice, which includes calculation, costing sheets, your accounting equation tables. We've got your trial balance. It's not easy working on numbers in an online class.

I don't wanna (sic) *like very, not easy at all. So, you know, having to have a lecturer showing us, how did you get this answer? Like in the board, you know, this is step one, this is step two. This is step three. And this is how we got to an answer. Uh, so I think it's, it's, it's much easier that way, you know, having to have to see a costing sheet online that is completed"* (5:91 ¶ 282 in TUT Focus group interview)

Based on the four factors identified, students seemed to prefer that hybrid/blended learning be a significant part of making the university experience a good one, but with a caution that face-to-face classes play a crucial role in the blends. Respondents also highlighted issues that could hinder access to academic progress, including limitations with transport, data, and books. An interesting response on the need for career guidance by respondents was also observed.

6.6 Other interview remarks

The Council on Higher Education (2020:4) report emphasised a recovery approach as a response to Covid-19 impacts. The recovery, termed 'emergency remote teaching' (ERT), included systems and programmes that were put in place to continue the education agenda during strict lockdowns and noted "…t*emporary shift of instructional delivery to an alternate delivery mode as a response to crisis situations. ERT involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses*" (Council on Higher Education, 2020:4).

As a way to assess the successes and challenges of the interventions put in place during the ERT, an understanding of the benefits and challenges experienced by students during remote learning should shed some light on the effectiveness of and impacts on remote learning plans (Twesige et al., 2021:148). This statement, by a respondent, indicated challenges students had experienced with remote learning, which were also highlighted by the DHET SA (2020:50-51) study. They pointed to requirements by HE for purposeful attention to implementing support requirements for students to ensure hybrid/blended learning as a consideration for a future HE strategy is carefully approached so that further imbalances in the education system are mitigated:

"Uh, I was actually saying that, uh, um, according to my opinion, according to what I've experienced, you know, what I've learned is that survival of the fit actually says that it's not those that are strong, that will survive, but are those that will be able to adapt to the new environment. (sic) *So basically that is what has worked for me. I literally saw no change in things happening the way that they're happening, because I've actually been able to adapt as for the rest days. I've been getting probably some complaints from other people asking for them to contact classes, because they've been struggling with this online thing"* (5:15 ¶ 75 – 76 in TUT Focus group interview)

"One thing I've learned is that, um, we are living in, a service culture whereby things change, you know, so as much as we are living in the 21st century, which (sic) is the, like the technological, a technological age, we just have to adapt to some things without having to actually complain about them" (5:16 ¶ 77 in TUT Focus group interview)

As Coetzee et al. (2021:8-10) advise, HE institutions must consider how students are going to be supported and empowered through adaptation to HE pedagogy in the 21st century.

6.7 Summary

The chapter presented findings of the focus group interviews, triangulated to findings of the survey in Chapter 5, where statements from interviews supported the survey data and contradictions were evident. The discussion delineated into themes. Theme 1 highlighted split findings in students' preferences for remote and face-to-face learning, observed in outcomes of Chapter 5. The focus group interviews highlighted the importance of benefits derived from social connections to learning linked to face-to-face or contact classes. Benefits of online/remote learning were viewed more in a supportive resource role with access to class recordings and flexibility of remote classes highlighted as critical benefits. Theme 2 in the analysis pointed to the 'diverger' learning style as the most prevalent when learning preferences and approaching learning content were analysed. Theme 3 made it clear that even during remote learning students still travelled to their perspective campuses to access facilities for collaborative teamwork or access to services. This is an indication that the user-friendliness of universities' campuses towards blended/hybrid learning is a big consideration and design is not limited to the curriculum only. The outcomes of the summarised themes were mentioned as considerations for the 'perfect university experience as responses in Theme 4 summarised.

The next chapter (Chapter 7) includes consolidated closing remarks on the survey results presented and discussed in Chapter 5, and the focus group interview findings presented Chapter 6. Study recommendations, implications for a tourism programme design and the limitations experienced during this study are discussed. Contributions to the curriculum body-of-knowledge are also outlined.

CHAPTER 7

CONCLUDING REMARKS AND RECOMMENDATIONS

7.1 Introduction

Instead of treating the reopening of buildings as the touch-campus talisman, we should embrace the modal shift in intentionality. We need to capitalise on the generational change of in situ student life and work with it, to go with the flow of the two years of two-thirds of a degree that have been delivered online and consolidate the success stories. Of course, in the same manner, we do know that some aspects of online are not optimal for education (Dann, 2022).

This study, which investigated the learning preferences of UoT students, found itself strongly driven by the events of the Covid-19 pandemic, national riots of June 2021, and floods in KwaZulu-Natal in early 2022. As a result, institutions operated within a hybrid/blended learning situation in compliance with regulated lockdowns. It would have been improper and, perhaps, biased reporting to ignore the impacts of the events that unfolded during this study as they directly impacted on experiences of students in HE which, in turn, directly impacted on students' learning preferences. This chapter directs the discussion from the findings of the study as guiding principles for hybrid/blended learning models, based on students' learning preferences and experiences that emerged from the data.

The chapter also provides a summary of significant results and findings from Chapters 5 and 6 and presents key assumptions and implications for the design of tourism academic programmes based on the conceptual and theoretical study frameworks. The challenges experienced in the study and recommendations are highlighted.

7.2 Revisiting study aim, theoretical and conceptual frameworks

The aim of this study was to explore the learning preferences of Tourism Management students at selected UoTs in South Africa, in the interest of engaging learning. Students' reflections on their perspectives and experiences of academic-related behaviours, on- and off-campus, and in the classroom environment, were investigated in response to the following research questions:

- What are the learning preferences of tourism students at the selected universities of technology in South Africa?
- How do learning preferences of tourism students influence academic engagement at the selected universities of technology in South Africa?
- What are students' perceptions of learning environments at the selected universities of technology in South Africa?

- What is the profile of a tourism student at a university of technology in South Africa?
- What impact did the Covid-19 pandemic have on student learning?

As the Covid-19 pandemic impacted operations of all industries and institutions, HE in South Africa had to re-plan and re-design teaching for emergency response actions to allow for remote operations in a quest to conclude the academic project (DHET, SA, 2020b:6; OECD, 2021:188; Twesige et al., 2021:147). Policy decision-makers and professional bodies in the education domain believe after Covid-19, the "new normal" in learning lies in the hybrid/blended model that was tested and implemented during the lockdowns. What HE needs to be aware of is that there were considerable benefits to remote learning and serious limitations to the models the higher education sector needs to understand regarding the concept of quality education and the educational experience of students (Landon, 2019:121; Business Tech, 2022). Assumptions that were made at the onset of the pandemic were tested and stakeholders best suited to settle confirm? the assumptions in these debates are the clients, in this instance students in higher education systems registered for the UoT tourism programmes.

Chapter 2 of the study drew a conceptual picture of factors that may impact tourism students' learning, including issues of preparedness for HE, students' socio-economic backgrounds, teaching practices, the learning environment, and timetabling issues as some of the considerations. Chapter 3 followed with an overview of students' learning style theories, highlighting the two theories applied in this study, namely: the VARK model to assess students' learning preferences in the classroom setting and Kolb's learning model to review remote learning engagement styles. To conclude, the chapter highlighted two critical theoretical frameworks used in guiding blended learning, which were a short synopsis of Lev Vygotsky's 1978 Proximal Zone of Development model that highlighted critical human connections formed through similar experiences and the need for a sense of community in people with shared experiences. The study also applied the guideline provided by the COI framework, which highlighted critical elements of the framework as a social presence, teaching presence, and cognitive focusing on student-lecturer connections. Primarily, a theory prominent in online or distance learning research (Garrison & Akol, 2013:4; Le Roux & Nagel, 2018:3) has emerged as the model being applied to blended learning research (Vaughan, 2010:63; Graham, 2013:12; Mshayisa, 2022:10) as critical elements for learning. The two models reviewed in this study focused on the benefits of social interactions for advancement of learning (Kolb & Kolb, 2005b:169; Zhou et al., 2020:32) and assessed the critical aspects of active learning (Sletten, 2017:350) in blended settings. Although the theories were critical in hybrid/blended learning research, for the purpose of this study, there were limitations in that for investigating students' learning preferences, the theories only focused on one element, that is, the social

connections to learning. The frameworks did not take into consideration issues of the learning environment, and teaching and learning styles as factors that have an impact on students' preferred style of learning. As a result, Bandura's Social Learning Theory (SLT) was adopted based on elements in the model that suit blended learning research. Descriptions of this process are outlined in Section 7.5.2.

To exhibit the study results, the presentation of data in research enquiries was guided by the following elements:

*   Theoretical foundation and conceptual framework that guided the study.

*   Main study objectives and questions.

*   Relevant results that indicate strong statistical significance.

*   Consistency of the results across multiple measures of a construct, and

*   Potential implications for theory, policy or practice (Valdosta.edu, n.d.:7).

7.3 Discussion on major results and findings

The discussion in this section presents a summary of the findings of the study and is organised in five groupings. The data collected sequentially was presented in Chapter 5 (quantitative) and Chapter 6 (qualitative). Discussion on findings in Chapter 6 included triangulation of results from the quantitative results to support these findings. The main study findings are presented in this section to address the study objectives.

7.3.1 Learning preferences in tourism programmes at the selected UoTs

Students' preferences for online and face-to-face classes were investigated to determine if tourism students preferred one form over the other, indicating preference for physical class attendance. The chi-square test was conducted with a $p = <0.05$, indicating significance of X^2 (10, N=115) $= 23.27$, $p = .0098$. This result indicated a highly significant association between variables of students' preferences to attend classes on campus based on the university of study. Institutions, during the Covid-pandemic and due to restrictions introduced by the lockdowns, had to drastically shift teaching and learning from the traditional face-to-face type to the extreme continuum of hybrid learning (Mthethwa & Luthuli, 2021:94). As a result, there was no gradual introduction of the varied experiences of fully remote learning and, thus, no standard principle on how hybrid learning was to be implemented at the various institutions (Mpungose, 2020:5-6). A finding based on the discussion from the literature in Section 2.3.4 was made that teaching practices might impact students' learning. This finding could have had

a significant implication on what students' preferences for remote learning were going to present.

The results of learning preferences indicated an overall dominance of various approaches to learning online compared to contact or on-campus setting. Using the VARK learning model to assess classroom learning preferences, dominance of the kinaesthetic learning style (94, N=45%), with regard to learning preferences in the classroom, indicated that activate-participatory classes were considered important for face-to-face classes. However, there was an indication that most registered tourism students neither preferred to participate in online classes (44.8%) nor enjoyed attending live classes. A participant stated: *"(S)o me sitting on a table and like listening to a lecture, it's kind of like, not for me. So, I would be like, okay, put the laptop on speaker and then continue doing whatever I was doing before I attended the class. But when I'm in a contact class, I feel like now we are talking"* (5:84 ¶ 259 in TUT Focus group interview).

On investigating the study preferences of tourism students, there was strong preference for students studying alone (48.31%). One respondent of the focus group interviews indicated that: …. *"I prefer to study alone, studying alone allows you to set the perfect study environment so you get the most out of studying. Studying alone also allows you to use the study tactics that are the most effective for your learning style"* (2:12 ¶ 30 in Prom_CPUT).

The 'diverger' learning style preference that was observed, with elements adopted from Kolb's model, assessed how students approached learning new content. All participated in the focus group interviews indicated conducting research on new content before either attending class or discussing elements they do not understand with peers. One respondent said: "*I first conduct my own research, visiting various sources to gain an understanding of the concept, and if I find it difficult to understand, I ask the lecturer to explain it further". (*1:12 p 2 in Abe_CPUT).

Preferences for face-to-face classes as a critical element of the hybrid/blended learning models have been made in literature (Pechenkina & Aeschliman, 2020:34). In their study of business school students, Goorha and Mohan (2009:150) found that the students had a hybrid approach to learning, adjusting according to changes in teaching modalities of the different modules attended during the course. This included issues such as data costs and internet connectivity problems. When compared to international studies, interactive lessons were also viewed as preferred by students (Martin & Bolliger, 2018:218).

7.3.2 Students academic engagement in tourism programmes at the selected UoTs

The results regarding students' preparations for tests and assessments revealed personal traits that could have an impact on learning, linked to certain stereotypes (Henning et al., 2019:8-9). An interviewee responded indicated that: " … *I don't have study group. As boys, we don't do such. It is difficult for me to,* (sic) *to maybe to call someone and say please help me, even though I do side sometimes, but not always. So, I study alone and one thing that we do, uh, at our class, …before there is a test, we make sure gore* [that] *we arrange a contact class for us, where we may pick someone to clarify* (sic) *us each and everything that you, what you understand. So, it's much easier for us to communicate and share information that we know"* (5:69 ¶ 201 in TUT Focus group interview).

Gender could be a factor where students' preferences to consult support services were concerned. A male student indicated preference not to use tutors or study groups, citing gender preferences. On the contrary, the study survey results suggested that female students were more inclined to use the services of a tutor. Comfort levels to seek academic assistance also indicated the issue of language as a factor. Preference was highly significant ($p = 0.038$) in favour of a tutor who spoke a similar home language. Female students were more inclined to use those tutors' services.

About 43% (42.5%) of students strongly agreed that preparations for examinations improved when the lecturer shared an examination guide, or scope, while 38.8% agreed with the same statement.

An interesting observation from the interviews, which was beyond the range of this study, was that students assumed online assessments did not test them appropriately or prepare them for sit-down examinations. A focus group participant, in responding, identified a critical issue of preparation for online assessments by stating that: *".....one writes online exams, then come the time for writing at campus, and we literally don't know anything"* (5:9 ¶ 62 in TUT Focus group interview). The participant went further to revealing that writing online examinations opened the opportunity for 'cheating', stating that … *"when you writing* (sic) *online, you know, that you can be able to copy. So, you won't study. Unlike when you're writing a sit in test"* (5:9 ¶ 62 in TUT Focus group interview).

These reflections indicated either a limitation in preparation for various assessment formats or variations in assessment standards prepared by lecturers. Either way, this is a clear indication of a lack of preparation by students in the form of completing assessments, and from lecturers' side with regard to proper training for quality online assessments and preparation of students for all assessment formats.

7.3.3 Perceptions of the learning environment

UoT students' learning environment in this study was restricted to the campus/classroom and home (place of residence during study) environments. The enquiry revealed that, on average, 90% (CPUT= 96.3%; CUT=93.2%; TUT =88.6%) of students preferred to live close to their university, while attending purely online classes because of lockdowns. In contrast, the results indicated strong preference for students to study at home, not on campus (54.5% agreed and 27.3% strongly agreed). Therefore, assumptions could be made that either students did not have suitable options for access to online learning in their hometowns, thus the need to migrate to the metropolitan areas even for online learning or they felt limited to enjoy full university experience. A TUT respondent said in the focus group interview: *"you know, in this online thing, our teachers in high school* (sic) *told us not to play with high school boys because university will find soulmates and everything. So with this online thing, you can't even find soulmates. We are struggling".*

The university library was perceived as the most critical facility on campus by the focus group respondents (Section 6.5.4). Based on this finding, including the finding on students' preference to reside close to their universities of study during remote learning, the use of physical campus facilities by UoT Tourism Management students who were studying purely online during this study, was low. Students who were surveyed on the use of university facilities during remote learning preferred not to travel to campus for any other reasons than face-to-face classes, even for students who resided in university residences. As a result, it was expected the use of online platforms, including the online library, would increase during this time. However, the results suggested that during remote learning there was little evidence to students used the universities' online library platforms effectively, as presented in Section 5.4.4.2. Libraries are critical resource centres for research, assignments and learning at UoTs. The effectiveness of these facilities in all platforms of the hybrid/blended models need to be ensured. The study revealed that only 39% of students indicated easy access to the online library during remote learning.

The third finding on learning environment was linked to students' opinions of what they considered a suitable learning environment. Results in this respect showed that accessibility to online and campus-based resources and facilities was a critical element. Students indicated having received great support from the participating UoTs in this regard but lamented the limited availability of facilities at critical times: "*…the wifi, it depends on what place* (sic) *you at like what section of the campus you are at. So, it's also a fine and then sometimes you find good* (sic, sic). *You have to go to the* (sic) *is to attend the class or write an online test. Then*

the library is closed. Like, how is it closed when students are still like learning that the semester is not even finished, but the library is closed" (5:31 ¶ 114 in TUT Focus group interview).

Regarding matters of student-support, issues of mental support also featured predominantly in the research findings. Students' self-awareness was assessed in Section 5.4.3.2, which presented high levels of self-awareness and a lack of mindfulness, with only 21.9% of participants making time to exercise. One open-ended survey response revealed that: " … *I am not panicking when writing tests because there's no invigilator that's walking around and making me nervous instead, I am in my own space and I'm more relaxed to read the question*". This suggests sit-down examinations do have a negative impact on the academic performance of students, which could be alleviated with a balance of online assessments.

Another critical issue of students' wellness and mindfulness is related to issues of the mental support spaces on campus, which could impact on students. A critical finding emerged from the focus group interviews where one respondent, in making a case for the importance of face-to-face classes, indicated that remote learning presented the potential for students' mental issues to go unnoticed, stating that students are:

> *"… able to build social relationships with each other, know each other, be able to assist each other know can have anyone probably going through depression on their own. You're able to see that now my friend is not okay. Okay. You know, my friend is not at school. You're able to realise, unlike in an online class, a friend attend will be crying and still not be okay"* (5:83 ¶ 255 in TUT Focus group interview)

Another respondent indicated the potential benefits of remote students' support services saying:

> *"However, last year I used an online counselling service, which was extremely beneficial because I needed support. I would rate that service an 8 because I received all of the assistance I required, the specialist was quite professional and had everything organised for each session, it felt safe to share, and I was able to recover from the trauma I experienced"* (5 p 1 in Abe_CPUT).

These findings bring awareness to the implication that in forging ahead with hybrid teaching and learning models, UoTs need to consider carefully the extension of students' support services on all platforms of learning spaces (Naidoo & Cartwright, 2020:8-12).

7.3.4 Profiling tourism students at the selected UoTs

Major findings of the profiling of study participants revealed that most Tourism students at UoTs are NSFAS-funded, belong to a historically disadvantaged group, have minimal possibility of purchasing the prescribed books, as presented in Section 5.4.1. Survey results

indicated that prescribed books are still a challenge because of unavailability of funds, and there was a difference between students who indicated they had all prescribed books and those who did not have. Only 18% of 126 students who were funded by NSFAS claimed they had all their books, with a further 50% indicating they had some of the prescribed books. Similar to the DHET SA (2020b:6) study, Tourism students also depended on NSFAS funding for the purchase of prescribed books as there were limited number of students self-funded students who had books. The qualitative data also suggested that most students, to a large extent, did not consider buying new books, opting for second-hand- or printed copies of the books, for the sake of affordability. In some instances, students had a book-sharing system, with peers deciding to divide the costs of a particular prescribed book amongst themselves. Of concern was a response by one of the candidates indicating that buying books was a *"waste of money, as all lecturers provided slides on the LMS"* and that they used these slides to study for assessments. In the South African context, NSFAS funds also appear to be used in supporting families financially, as one focus group respondent revealed:

> *"I have a friend, we actually shared, we are doing the same course.* (sic) *So I'm like, okay, what's the need for buying? …We have seven books…we can actually buy this one and that one and then sharing them amongst each other. So we, I think so on my side I have half, half…so basically I would say I have all the books that are needed"* (5:76 ¶ 232 in TUT Focus group interview)

A suggestion Mpungose (2020:3) and Dlamini et al. (2021:165) made is that students, in the application of 21st-century skills, while conducting research to complete academic activities by sourcing information easily online, could make the need for prescribed materials obsolete. An assumption previously made by the Council on Higher Education (2010:152), which is still a critical debate in South Africa, is the ill-preparation of learners at school level (Botha, 2018:60; Maddock & Maroun, 2018:205) which creates limitations for UoT students to effectively interpret prescribed materials for projects.

7.3.5 Impact of Covid-19 on student learning

Issues that address other study objectives offer a glimpse of the impacts of Covid-19 on students' learning. There is an indication that students enjoy the benefits of remote learning and that felt online learning impacts their studies in one way or another. While one participant indicated the benefits of 21st-century skills, including online collaboration and independence in conducting research that remote learning offered them, another highlighted challenges with access to learning, engagement, and assessments that remote learning exposed them to. The divide in learning shown in the remarks in the summary of Chapter 6 that education during remote learning was mainly a 'survival of the fittest', attests to inequalities that exist in education and could be exacerbated by improper planning and implementation of hybrid/blended learning models, according to students' perceptions of remote learning

discussed in Section 5.4.5.1. A further review of the impacts of Covid-19 on education (Section 6.5.2.2) indicated that benefits of remote learning were seen as offering flexibility (Pechenkina & Aeschliman, 2020:32) and independence in studies, extended access to classroom materials, and improved learning and research skills. The negative impacts were identified as technical issues, unsuitable online class environment, or a mismatch of classes for online tuition, limitations regarding access to lecturers, lack of social interaction, and incomparability of certain Tourism Management classes for online tuition (King & Arnold, 2012:44–45).

Preferences for contact/face-to-face classes highlighted limitations of online learning as students' preference for contact classes included improved and instant contact to lecturers, which was a considerable limitation identified with remote learning. That said, the study results revealed that students particularly enjoyed and improved on their collaboration skills online during remote learning, and indicated an increased preference for interactive sessions, mostly preferring the flexibility of remote learning. These findings are similar to findings of other studies by Pechenkina and Aeschliman (2020:32-33), Celestino and Yamamoto (2020:9), and Mshayisa (2022:10). Another finding of this study, that is, the impacts of remote learning on the mental health of students, is supported by ReadLab (2022:36), indicating limitations of remote learning.

7.4 Study conclusions

Although students highlighted the importance of the 'traditional' university teaching format for them, there are expectations for a shift in the blending in of technology in teaching and learning. The concept of the 'new normal' in HE implies that students prefer a hybrid/blended learning design that is supportive and well-structured. The preferred hybrid/blended model, as observed from the study findings, points to an online environment used to introduce learning content and migrating to face-to-face sessions, which are preferred for revision, group and study sessions to cement new knowledge taught online.

The challenge for tourism programmes is how to strike a balance on the hybrid/blended model, where attendance is critical for face-to-face, on-campus classes, with presentations on online classes provided in a flexible format. It was evident in the results that live online class attendance was not preferred by students, but also crippled by the varied abilities of students to access sessions. Data availability and affordability was a limitation identified by HE students not only in this study, but also in similar studies conducted in South Africa (CHE, 2010; DHET. SA. 2020).

Due to the socio-economic backgrounds of many UoT students, the issue of access to learning still points to inequalities from students' perspectives. In designing hybrid/blended programmes, faculties need to consider systems implemented through Covid-19 emergency

academic response programmes and how institutions could align students' support programmes for hybrid/blended learning.

7.5 Contributions of the study

Theories on hybrid/blended learning are still developing. Section 7.2 presented theories underpinning the research, while Section 7.3 presented critical research findings that could inform practice and have research implications. The study contributes to the body of knowledge in education by proposing a framework as the basis for deciding on the best hybrid/blended learning research and practice, informed by experiences of UoT students learning in a hybrid learning setting. The findings form the basis for the framework presented in Table 7.1. This proposed framework could be viewed in tandem with the proposal by Celestino and Yamamoto (2020:9) in a quest to design hybrid/blended models for HE institutions in South Africa.

7.5.1 Contributions to hybrid and blended learning literature

In terms of building the framework presented in Figure 2.1 (on page 21), the researcher's view of learning models brought about a critical review of Bandura's Social Learning Theory (SLT), also known as Social Cognitive Theory (Figure 2.2, on page 32). Bandura's Social Learning Theory explains the model of learning as deriving from social interactions; it explains that people learn from one another by observing, imitating, and modelling others' behaviour. This definition is true in children as they learn by imitating behaviour observed from adults (Devi et al., 2017:722), an element not necessarily applicable at adult-level education, but does have an impact on preparation for higher education learning and, to a degree, a learning principle still impactful at the higher education level. The discussion borrows elements from the SLT to tackle social issues and preparedness for the university environment as some of the issues that have an impact on students' academic performance.

The framework of Bandura's Social Learning Theory was adopted to assist in framing the conceptual framework for the study in Chapter 2 as the conceptual framework highlighted critical factors that impact students' learning preferences. The theory, also considered by McGhie (2012:192-193) in her study, identifies factors that have an impact on the progress of first-year students at universities in South Africa. In this latter study, the author also considered three areas critical for students' academic progress, namely: academic factors, social factors, and institutional factors (McGhie, 2012:192-193), which are in line with factors depicted in the conceptual framework of this study presented in Chapter 2 (Section 2.3). The author, however, in her study, situated Bandura's model within social factors similar to the COI model and Vygovsky's model. This limitation of models used for hybrid/blended learning was considered in that although the sense of community of learning is critical for online learning, students'

preferences did not only rely on this aspect because students' personal attributes, and teaching and learning models also impact on how students learn.

Based on this background, this study attempted to adopt elements of Bandura's SLT theory that highlights three critical areas: personal, environmental, and behavioural and link them with the conceptual framework of the study. This was also represented in McGhie's (2012:192-193) study to develop the following framework/guidelines of factors that affect students' learning preferences to model what could be viewed as hybrid/blended preferences factors:

- ✓ Personal factors would represent students' attributes such as their learning profiles, based on their learning styles.

- ✓ Environmental factors would represent the learning environment, student's personal backgrounds/socio-demographic issues, and

- ✓ Behavioural factors would represent teaching and learning modes, and technological impacts on education.

The adoption of Bandura's Social Learning Theory represents the relationships among these variables as factors for consideration in assessing students' learning preferences based on remote or contact learning settings. As the study focuses on critical reflections for hybrid/blended learning, it proposes guidelines that HE policy-makers and Tourism Management programme leaders could apply as checklists in designing hybrid/blended models that are learner-focused. The basis for the guidelines centres on students' learning preferences of their learning environment and what constitutes a suitable practice for the learning environment. Elements of the guidelines are discussed in a summary in Table 7.1.

Preferences related to student **personal attributes** indicate that hybrid models selected for online learning should allow for self-paced study with some element of collaboration where students are provided with online resources that could be used as references. For contact or face-to-face classes, it is essential to consider student attributes towards a design that allows for preference of the settings for learning of new content, directed by lecturers and tutors. Contact classes would be useful in building close connections with peers during active learning sessions that also allow for collaboration.

Related to the **learning environment**, selected hybrid/blended models are required to include support mechanisms as the basis for well-designed models. For both online and remote settings, access to academic support and counselling services is crucial. As connectivity issues are important for remote learning settings, findings of the study indicate that students perceive campus-wide internet accessibility as crucial to remote online accessibility. Students' preferences for flexible online classes are also important for face-to-face classes as the

timetable design of on-campus classes requires attention owing to early and/or late class sessions.

Related to teaching modes or **teaching practice**, significant perceptions of importance of contact classes indicated that UoT students prefer online classes to less periodic contact or face-to-face classes. Methods of class delivery were more preferred to recorded lessons or short online sessions where live sessions are a requirement. These preferences are aligned to preferences related to personal attributes as consistent face-to-face classes are preferred, which could be designed to deliver new content, while online remote learning could be applied as a method to reinforce learning.

Table 7.1: Student-focused hybrid/blended learning framework guidelines

		Students' preferences		
		Personal attributes	**Learning environment**	**Teaching practice**
Teaching and learning model	**Online**	Prefer to study alone Limitless access to learning materials Flexibility/ Self-paced Collaborative skills	Support with online access (data/hotspots/Wi-Fi) Access to support services (tutors/mentors) and counselling services	Block-release Recorded classes Short activities
	Campus based	Group activities Interactive lessons Revision sessions Social connections Collaborative skills	Suitable timetables Access to lecturers Access to support services (tutors/mentors) and counselling services Campus-wide Wi-Fi connection	Consistent contact sessions

Source: Researcher's construct

A study by Xaba (2021:33) on what constitutes a suitable learning environment found three emerging themes: an experiential and involved learning environment; safe spaces for students to freely engage and express, and an off-campus outdoor learning environment, all critical elements identified in the student-focused hybrid/blended learning framework in Table 7.1.

The literature and academics have long motivated for the benefits of hybrid/blended models in teaching and learning, and academics have applied various models to subject modules to determine the success of pilot projects. Hybrid/blended learning works. What has been the challenge is to determine if the chosen blend is suitable for the geographical context. Experience with the pandemic has enabled academia to re-think education and teaching strategies. In doing so, some strategies have come with successes, while others have come with challenges and limitations. The guidelines provided in Table 7.1 propose a decision-making framework for academics to select a blend suitable for their context. Important considerations for the choice of blended learning models presented in Section 2.3.4.2 by departments, faculties and UoTs at large cannot be solely subject content driven. Students' preferences regarding personal attributes, the learning environment and teaching practices play a crucial role in the decision-making process of a suitable hybrid/blended learning model.

7.6 Implications for tourism programme curriculum and facilities design

The Community of Inquiry Theory provides guidance on how HE should focus on the design of future learning programmes for remote delivery (Vaughan, 2010:61. The proposed hybrid/blended learning guidelines (Table 7.1) also indicate that students' personal attributes, the learning environment and teaching models are critical requirements of a hybrid/blended design. In responding to the study objectives, the profile of tourism students and the impact of Covid-19 pandemic on learning, the results show a high percentage of tourism students rely on NSFAS funding (83%) for academic support. This indicates South African policy-makers need to focus on these aspects to make informed decisions on the best blends for learning in HE in order to mitigate imbalances of access to HE and for effective HE designs.

The Covid-19 emergency implementation plans, referred to as ERT (Council on Higher Education, 2020:6-7), were based on the premise that there was a need to refocus efforts and resources to complete the academic agenda. This approach to a social justice agenda on implementing initiatives for the completion of HE education assisted in mitigating imbalances in access during remote learning. Continuation of this approach could be critical in ensuring inclusivity of all HE students. The challenge for government and institutions of higher learning is to consider long-term strategic partnerships with all critical stakeholders on how the ERT principles could be adopted for carefully designed hybrid/learning models.

7.7 Recommendations for future practice of tourism programmes

The study recommendations are proposed for Tourism Management and business faculties for consideration of hybrid/blended programme design. Recommendations from the DHET SA (2020:68) stated that:

"The COVID-19 pandemic changed the way students and institutions think about optimal learning and teaching environments. The implications for the current definition of contact, distance and online education will need to be reconsidered in a "new normal." Similarly, new quality assurance approaches for the variety of flexible learning approaches that are going to remain during and after the pandemic will need to be developed"

In view of the changed teaching and learning environment occasioned by the impact of Covid-19 on higher education and the need for flexible and innovative ways of teaching and learning in the 'new normal', the following considerations are recommended:

- Reskilling academic staff: creating pedagogic blends that allow for maximum benefits for students and faculties will require considerable re-design and reskilling of the university academics as this means a re-alignment of their teaching styles to blends or hybrid models that will be adopted by tourism programmes within respective faculties. Literacy of digital media for effective online classes will be a requirement for the 21st-century teaching environment (Tan, 2017:164).

- Orientation of students to hybrid/blended learning: critical findings of the study presented in Section 7.3 indicate that although students were studying purely online during remote learning, access to academic resources such as online library was limited by a lack of students' knowledge of online teaching and learning practices critical for their academic success. Tourism departments, in creating orientation programmes for online learning need to extend orientation programmes beyond the use of LMS.

- Reskilling for design of online assessments: The study indicated challenges for students in how to transition from remote assessments to sit-down examinations. Tourism students need orientation in preparation techniques for the various assessments, remote and sit-down examination formats and the types of skills required for each. The issue of online cheating identified would have a possible negative impact due to improperly set online assessments. Online assessments were discussed in the review of theories to assess student learning styles, (Section 3.4.1), with a discussion on determining how various forms of assessments could be used as tools that could lead to meaningful learning, which could be used as mechanisms to limit cheating, (Rothman, 2016:3; Council on Higher Education, 2020:21; Pavlik, 2020:6-7; Coetzee et al., 2021:21). For academic programmes, reskilling of academic staff would be critical on assessment strategies for hybrid/blended assessments, based on teaching and learning models, which departments could implement.

- Approaching learning with a sustainable mind: transforming education is a key element of the 2030 Agenda for Sustainable Development (United Nations, 2015). In this agenda, education plays a unique role in improving knowledge and skills, addressing

environmental issues, sustainability and human well-being (Bauer et al., 2021:2). Interdisciplinary approaches are required for this process to succeed (Cilliers, 2019). A holistic approach to learning and student support goes beyond what is provided regarding academic and mental health. UoTs need to consider the role and design of university architecture for hybrid/blended learning. The study results emphasise the importance of access to remote Wi-Fi as students value these spaces. University connectivity is limited to areas that considered high traffic such as boardrooms and classrooms, while connectivity is lacking in outdoor spaces. In support of this recommendation, a study by McGhie (2012:197) makes an argument for universities to consider functional green-spaces that offer well-being support for students.

7.8 Recommendations for future research within tourism education

Research on study preferences indicate some interesting observations on the impacts of remote learning on assessments (Section 6.5.2.2). For this reason, it is recommended that future research on remote learning involve a thorough review of online assessment practices from both lecturers' and students' perspectives. The pandemic was an unavoidable catalyst to the urgent speed at which hybrid/blended models were implemented in South African higher education institutions. An opportunity exists to reflect on benefits the sector enjoyed and considerations of practical solutions available for the design of the 'new-normal' in HE. Going forward, the appetite for change in HE rests on what autonomy UoTs have in programme design, frameworks approved by authorities for the design of future tourism academic programmes, and what role industry would continue to play in the HE domain in South Africa. Herein lies opportunities for further studies.

Another area for future research is re-design of what assessments mean in hybrid/blended learning. Critical evidence has emerged from the study on critical questions that need to be asked of what and how tourism knowledge would be assessed to improve learning and assessment of new assessment strategies in tourism programmes, including benefits or impacts of online assessments on students (DHET, SA, 2020:56).

7.9 Limitations identified in the study

The limitations of this study are attributable to challenges associated with data collection. The process of data collection was marred by challenges. First, the incidence of Covid-19 inevitably led to remote learning, which limited access to study participants and affected willingness and//or availability of students to participate in remote studies. Secondly, as access to participants was initiated through identified tourism staff members in UoTs as coordinators, as

indicated in Chapter 3, willingness of these selected staff members or coordinators played a major role. DUT was one of the selected participating institutions, but there was no interest from students at the university to participate and, thus no data could be collected, as a result of which the institution was not included in the main findings.

Thirdly, willingness of students to participate in online studies was a factor, evident in observed survey results as attrition of survey participants was clearly visible from the first to the last section of the survey. Irrespective of the benefit of authentic results from participants who voluntarily completed the survey, the impact of low response rate is a critical limitation. The fourth limitation relates to sample size, another consideration that was of concern. In the quantitative data analysis, the issue of participant attrition in the process of data collection was considered and tests conducted to determine if this process had an impact on the validity of the results received. No major impacts on data were observed, and the data was suitable for analysis (Creswell, 2014:275-276). In the second phase of the study, unwillingness to participate further in the study was again experienced. Responses for interest to participate in the second phase of the study, which was the focus group interviews, were received from only two of the participating UoTs. Qualitative data in explanatory-sequential studies is critical to understand reasons behind trends observed in quantitative data. The fifth limitation was the small size of the sample. To validate the qualitative data of this study, supporting or comparative study findings with secondary sources of similar studies within the same geographical area as this study was considered as a critical step.

7.10 Summary

Quantitative and qualitative insights of students constituted the main findings of the study, which assisted in drawing the main conclusions and proposing a student-focused hybrid/blended learning framework guidelines based on preferences of tourism students at participating UoTs. The recommendations are based on reflections on how students' learning experiences could shape the future of hybrid/blended learning decisions on tourism programmes. The proposed hybrid/blended learning design framework could serve as a guideline to inform the design of supportive hybrid/blended learning models for tourism programmes at UoTs in the South African context. It is envisaged that in disseminating the work completed in this study and sharing outcomes with colleagues in academia, there will be a meaningful contribution towards the design of tourism programmes in the frame of hybrid/blended teaching and learning practice.

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APPENDIX A: CPUT ethics approval certificate

Cape Peninsula University of Technology

P.O. Box 1906 | Bellville 7535
Symphony Road Bellville 7535
South Africa
Tel: +27 21 4603291
Email: fbmsethics@cput.ac.za

Office of the Chairperson Research Ethics Committee	FACULTY: BUSINESS AND MANAGEMENT SCIENCES

The Faculty's Research Ethics Committee (FREC) on **4 May 2021**, ethics APPROVAL was granted to **Mokoena Pavla (212292781)** for a research activity for D Tech: Tourism & Hospitality Management at Cape Peninsula University of Technology.

Title of dissertation / thesis / project:	New-age tourism students' learning preferences and the implications for tourism education at Universities of Technology in South Africa Lead Supervisor (s): Prof JP Spencer

Decision: APPROVED

	31 August 2021
Signed: Chairperson: Research Ethics Committee	Date

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the CPUT Policy on Research Ethics.

2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study requires that the researcher stops the study and immediately informs the chairperson of the relevant Faculty Ethics Committee.

3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.

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.

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, notably compliance with the Bill of Rights as provided for in the Constitution of the Republic of South Africa, 1996 (the Constitution) and where 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 and/or other legislations that is relevant.

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 two (2) years for Masters and Doctorate research project from the date of issue of the Ethics Certificate. Submission of a completed research ethics progress report (REC 6) will constitute an application for renewal of Ethics Research Committee approval.

Clearance Certificate No | 2021 FBMSREC 050

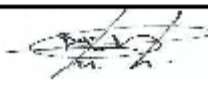## APPENDIX B: Ethics letters from participating UoTs

Cape Peninsula University of Technology

Office of the Chairperson Research Ethics Committee	FACULTY: BUSINESS AND MANAGEMENT SCIENCES

The Faculty's Research Ethics Committee (FREC) on 4 May 2021, ethics PROVISIONAL (CONDITIONAL) APPROVAL was granted to Mokoena Pavla (212292781) for a research activity for D Tech: Tourism & Hospitality Management at Cape Peninsula University of Technology.

Title of dissertation / thesis / project:	New-age tourism students' learning preferences and the implications for tourism education at Universities of Technology in South Africa Lead Supervisor (s): Prof JP Spencer

Decision: PROVISIONALLY APPROVED

	7 May 2021
Signed: Chairperson: Research Ethics Committee	Date

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the CPUT Policy on Research Ethics.

2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study requires that the researcher stops the study and immediately informs the chairperson of the relevant Faculty Ethics Committee.

3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.

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.

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, notably compliance with the Bill of Rights as provided for in the Constitution of the Republic of South Africa, 1996 (the Constitution) and where 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 and/or other legislations that is relevant.

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 two (2) years for Masters and Doctorate research project from the date of issue of the Ethics Certificate. Submission of a completed research ethics progress report (REC 6) will constitute an application for renewal of Ethics Research Committee approval.

Clearance Certificate No | 2021 FBMSREC 000

MS. PAVLA MOKOENA

PERMISSION FOR MS. PAVLA MOKOENA, TO CONDUCT HER D TECH RESEARCH ENTITLED "NEW-AGE TOURISM STUDENTS' LEARNING PREFERENCES AND THE IMPLICATIONS FOR TOURISM EDUCATION AT UNIVERSITIES OF TECHNOLOGY IN SOUTH AFRICA" AT CUT.

Standard conditions apply.

Dear Ms. Pavla Mokoena

This is to confirm that you have been granted permission to conduct D tech research at the Central University of Technology for your D tech research entitled "new-age tourism students' learning preferences and the implications for tourism education at Universities of Technology in South Africa."

The conditions of the conditional permission are:

- The D tech research will not interrupt any of the official activities at The Central University of Technology;
- You will supply us with the copy of your report;
- The cost of all related activities will be covered by yourself;
- Recruitment of participants is the sole responsibility of yourself;
- Voluntary nature of the potential participants decision to consent to participate should be strictly observed;
- You should not disclose a potential participant's decision to participate or otherwise to any other party;
- Permission does not compel, in any sense, participation of staff members or students in your survey;

Senior Director: Institutional Planning and Quality Enhancement

Mr. I. Mokhele

19/05/2021

30th August 2021
Ms Pavla Mokoena
c/o Department of Tourism and Events Management
Faculty of Business and Management Sciences
Cape Peninsula University of Technology

Dear Ms Mokoena

PERMISSION TO CONDUCT RESEARCH AT THE DUT

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research and Innovation Committee (IRIC) has granted **Full Permission** for you to conduct your research "New-age tourism students' learning preferences and the implications for tourism education at the Universities of Technology in South Africa" at the Durban University of Technology.

The DUT may impose any other condition it deems appropriate in the circumstances having regard to nature and extent of access to and use of information requested.

We would be grateful if a summary of your key research findings would be submitted to the IRIC on completion of your studies.

Kindest regards.
Yours sincerely

DR LINDA ZIKHONA LINGANISO
DIRECTOR: RESEARCH AND POSTGRADUATE SUPPORT DIRECTORATE

Research Ethics Committee

August 23, 2021

> REC Ref #: REC/2021/06/007
> Name: Mokoena PP
> Student #: 212292781, CPUT

Ms PP Mokoena
C/o Prof JP Spencer
Department of Tourism and Events Management
Cape Peninsula University of Technology

Dear Ms Mokoena,

Decision: Gatekeeper Permission - Final Approval

Name: Mokoena PP
Project title: *New-age tourism students' learning preferences and the implications for tourism education at Universities of Technology in South Africa*
Qualification: D Tech: Tourism and Hospitality Management
Supervisor: Prof JP Spencer

Thank you for submitting the revised project documents for review by the Research Ethics Committee (REC), Tshwane University of Technology (TUT). In reviewing the documents, the comments and notes below are tabled for your consideration, attention and/or notification:

- **Proposal**

   - The revised proposal is in order and duly noted.

We empower people

APPENDIX C: Sample letter: Invitation letters to Tourism Department HOD's requesting participation in the study

From:	Szubarga Antoni
To:	Phitlhelelo Mokoena
Subject:	[EXTERNAL] RE: Request for approval to conduct a survey at your university
Date:	Tuesday, March 16, 2021 15:12:00
Attachments:	image012.png
	image017.png
	image019.png

Good day

In response to your request with regard to your research projects I am informing you that you will have to follow the CUT procedure.
You need to apply for permission to conduct survey/research at CUT campuses. The submission should contain the following:

    a) Survey purpose /research proposal.
    b) Ethical considerations including privacy legislation
    c) Questionnaire
    d) Sampling procedure
    e) Ethical clearance from an appropriate Ethics Committee

Only when complete application is submitted through my office the CUT will provide you with our decision including our conditions.

Regards
A Szubarga

www.cut.ac.za

Tel: +27 51 507 3008 | **Fax:** +27 51 507 3654 | **E-mail:** Szubarga@cut.ac.za

Prof. Antoni Szubarga
Deputy Director: MIS
Institutional Planning and Quality Enhancement
Central University of Technology, Free State (CUT)
Private Bag X20539, Bloemfontein, 9300, South Africa

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From: Phitlhelelo Mokoena <mokoenap@cput.ac.za>
Sent: Tuesday, 16 March 2021 3:08 PM
To: Szubarga Antoni <szubarga@cut.ac.za>
Subject: FW: Request for approval to conduct a survey at your university

Dr Szubarga

This is Pavla Mokoena, CUT alumni and currently PHD candidate at the Tourism and Events Management department at the Cape Peninsula University of Technology (CPUT). I have been directed to your office by Dr Hattingh HOD Tourism, regarding my enquiry for research your office. Please see attached my letter for approval to collect data.

Kind regards

Pavla Mokoena
Lecturer: Tourism and Events Management, Faculty of Business and Management
Sciences Cape Peninsula University of Technology
Hanover Street, District Six, Cape
Town Tel: +27 21 460 9082
Email: MokoenaP@cput.ac.za

@cput_tourism
Tourism & Events Management - CPUT
@cput_tourismandevents
Tourism & Events Management - CPUT

Cape Peninsula University of Technology

From: Hattingh Johannes [mailto:jhatting@cut.ac.za]
Sent: Friday, March 05, 2021 13:42

To: Phitlhelelo Mokoena <mokoenap@cput.ac.za>
Subject: [EXTERNAL] RE: Request for approval to conduct a survey at your university

Dear Palesa

How nice to hear from you again!

Regarding your application for research. I personally do not have a problem about it, however, you will need to get institutional approval first. You can write to Dr Szubarga at Szubarga Antoni <szubarga@cut.ac.za>
and ask for the necessary approval.

Tourism regards

www.cut.ac.za

Dr Johan Hattingh
Head of Department (HOD)

Senior Lecturer

Tourism and Event Management
Faculty of Management Sciences

Tel: +27 51 507 3288 | **Fax:** +27 51 507 3363 | **E-mail:** jhatting@cut.ac.za

Cell: +27 82 200 9429

Central University of Technology, Free State (CUT)
Private Bag X20539, Bloemfontein, 9300, South Africa

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From: Phitlhelelo Mokoena [mailto:mokoenap@cput.ac.za]
Sent: Friday, 05 March 2021 9:33 AM
To: Hattingh Johannes <jhatting@cut.ac.za>
Subject: Request for approval to conduct a survey at your university

Dear Dr Johan Hattingh (HOD: Tourism Management CUT)

I am Ms Pavla Mokoena, Academic staff member and PHD candidate from the Tourism and Events Management Department, at the Cape Peninsula University of Technology (CPUT). This memo is to request your help in obtaining information for my D Tech study titled **"New-age tourism students' learning preferences and the implications for tourism education at Universities of Technology in South Africa".**

Although teaching and learning programmes have been bolstered with quality practices adopted by Faculties, we cannot ignore the exponential impact of the Covid-19 pandemic on technological changes, adaptations to modes of learning, and the change in learning environments, on students. My study will investigate the experiences of students through these challenging times and determine what worked for them in their learning approaches. The feedback from this investigation is envisaged to assist in informing the teaching and learning design of tourism programmes at UoTs.

To enable collection of this data, the Central University of Technology (CUT), Tourism department has been selected to participate in the study, as one of four South African UoTs identified for the study, that offer tourism studies. This letter serves as an introduction, and as a request for approval to conduct surveys with students and staff in your department. On completion of the study, I will be happy to share your department data with you.

For approval of this request, I will appreciate your approval response on a formal, signed letter, to enable me to submit to the ethics committee in my faculty. A further request is to get contact details of the Teaching and Learning representative in your department, for logistical arrangements. Please do not hesitate to contact me for any further questions you may have.

Thank you for your consideration, and hope for a positive response. I will gladly respond to any further queries you might have regarding this request. Should you need further details, I am also including my study supervisors' details:
Study Supervisor: Prof John Spencer (Tourism and Events Management Adjunct Professor)
Email address: jpsafron@mweb.co.za

Kind regards

Pavla Mokoena
Lecturer: Tourism and Events Management, Faculty of Business and Management
Sciences Cape Peninsula University of Technology
Hanover Street, District Six, Cape Town

Tel: +27 21 460 9082 / 0828578486 (cell phone and e-mail most prefered for communication due to remote work)
Email: MokoenaP@cput.ac.za

@cput_tourism
Tourism & Events Management - CPUT
@cput_tourismandevents
Tourism & Events Management - CPUT

Cape
Peninsula
University
of Technology

APPENDIX D: Invitation to participate in online survey

APPENDIX E: Invitation for participants for the focus group interviews

New-age tourism students' learning preferences survey

Dear Participant,

The call to participate in a focus group interview for this study is still open. We have cellphone data offer for participants. Limited spaces available! E-mail the researcher before 17 May 2022 @ *mokoenap@cput.ac.za*

FINAL Reminder: Do not miss the opportunity to get your voice heard for this survey. If you are half-way done with your survey, click on the link that was sent to you to complete your saved survey.

If you have not started the survey, click on the link: https://cput.limequery.org/121161?lang=en

Your feedback is very important to us. Should you have questions, please feel free to contact the researcher, Pavla Mokoena at mokoenap@cput.ac.za

ENKOSI!   KEA LEGBOGA!   BAIE DANKIE!   THANK YOU!

APPENDIX F: Request for CPUT focus group interview to be converted to e-mail post lost connection due to power outages, and focus group interview questions

Dear focus group participant

I am calling on you to please assist with clarifying aspects of the interview. Due to load shedding and network issues, most parts of the interview are unclear in the recording. To avoid organising another session, can you please complete all the questions below and just mail to me when done. I apologise for the inconvenience, but our session was marred with issues today. You do not have to remember word-for-word what you said in the focus group session, but please elaborate as much as possible.

I hope to get your feedback soon. Thank you once again for your assistance.

Focus Group interview questions:

Covid-19 pandemic impacts:

1. You have experienced both remote and online class attendance models. If you could choose face-to-face or online classes which option would you prefer, and why?
2. Do you think remote learning has impacted your way of studying? If it has, in what way?
3. What is your preferred method of remote learning and why?
   - I prefer to attend live classes
   - I prefer to watch videos at my own time
4. **What** type of services you have and **How** would you rate the services (1 to 10) and support for remote learning at your university? Please explain your response. (elaborate)

Learning/support services on the university:

5. What facilities (what are the examples) and support services do you use when you are on campus?
6. Do you think the design of your campus **and/or** facilities are user friendly for students? Elaborate
7. Before remote learning, how often did you use the university library? What would you mostly do at the library?
8. During remote learning, do you use the online library or physically visit the university library?
9. Do you have problems with electricity where you live?

Student Learning Preferences:

10. When you attend face-to-face classes, what type of lesson do you mostly prefer? Elaborate
    - Lecturer teaching?
    - Group discussions?
    - Mini activities?

11. When learning a new or a difficult concept, what type of study mechanisms do you use?

APPENDIX G: Draft Survey on MS Word document (Lime Survey link version available on request)

CAPE PENINSULA UNIVERSITY

OF TECHNOLOGY (CPUT)

New-age tourism students' learning preferences and its implications for tourism education at Universities of Technology in South Africa

Dear Respondent

The purpose of this study is to understand tourism students' learning preferences together with its implication for tourism education at UoTs in SA. This will assist university faculties in improving student throughput and success rates. To be able to obtain this result, understanding how students prefer to learn is important.

You are therefore kindly requested to participate in the study by providing your honest opinions about learning preferences and experiences. Please note that the information that you provide remains confidential, and will only be used by the researchers for academic purposes.

Instructions:

This questionnaire will take approximately 10 to 15 minutes of your time to complete. If, at any time you feel uncertain about any question, please feel free to ask about it, or to opt out of the study, if you so wish. Your participation in this study is voluntary, and your responses will remain confidential and anonymous. Please answer all questions.

Thank you.

SECTION A - STUDENT PROFILE INFORMATION:

1. Gender category (Tick one option below that applies to you)	
Male	
Female	
Other: …………………………	
Can't disclose	
Prefer not to disclose	

2.	Historical racial classification (**Tick one option below that applies to you**)						
Black		Coloured		Indian		White	

3.	What age did you or will you turn this year? (**Tick one option below that applies to you**)				
< 18 specify………..	18 - 20	21 - 25	26 - 30	>30, specify………..

4.	What is your current year of study? (Tick one option below that applies to you)	
4.1	Extended Programme - Year 1	
4.2	1st Year	
4.3	2nd Year	
4.4	3rd Year	
4.5	4th Year	

5.	What is your first/home language? (Tick one option below that applies to you)	
5.1	Afrikaans	
5.2	English	
5.3	IsiNdebele	
5.4	IsiXhosa	
5.5	IsiZulu	
5.6	Sepedi	
5.7	Sesotho	
5.8	Setswana	
5.9	SiSwati	
5.10	Tshivenda	
5.11	Xitsonga	
5.12	Other (specify):……………………………………………	

56.	Where are you currently based, while you study? (Tick one option below that applies to you)	
6.1	Western Cape	
6.2	Eastern Cape	
6.3	Northern Cape	
6.4	Free State	
6.5	Kwa-Zulu Natal	
6.6	North West	
6.7	Gauteng	
6.8	Mpumalanga	

6.9	Limpopo	
6.10	Outside of South Africa (specify): ………………………………	

7.	Where do you live while studying? (Tick one option below that applies to you)	
7.1	I stay in university residence	
7.2	I stay in private accommodation	
7.3	I stay in a communal flat/house/accommodation	
7.4	I stay in a shack	
7.5	I am renting a room	
7.6	Other (specify): ………………………………………………	
8.	Who do you live with while studying? (Tick one option below that applies to you)	
8.1	I live alone	
8.2	I live with my parents	
8.3	I live with my aunt/uncle	
8.4	I live with my boyfriend/girlfriend who I am in a relationship with	
8.5	I live with my husband/wife	
8.6	I live with a room mate	
8.6	I live with my friend	
8.7	Other, specify:_____	

9.	When you have face-to-face class, how do you travel to and from campus? (Tick one option below that applies to you)	
9.1	I have my own vehicle	
9.2	I have a regular lift	
9.3	I use the university shuttle/buses	
9.4	I use public transport (taxi/metrorail/local buses)	
9.5	I live close to campus so I can walk	
9.6.	I use e-hailing services (Uber, DIDI, Bolt, etc.)	
9.7	I use combined transport systems (eg: a train and a bus) (specify): ………………………………………………………………………	

10.	How long does it take you to travel to campus? (Tick one option below that applies to you)	
10.1	under 15 minutes	
10.2	Between 15 and 30 minutes	
10.3	Between 30 mins and 1hour	
10.4	Between 1 and 1.5 hours	
10.5	Between 1.5 and 2 hours	
10.6	Over 2 hours	

11.	Where are you originally from? (Tick the Box that applies to you)			
11.1	The province I live in while I study is my home province			
Yes		No		
11.2	If your answer was No to Question 10.1, indicate below where you are originally from (Tick the Box that applies to you)			
11.2.1	Western Cape			
11.2.2	Eastern Cape			
11.2.3	Northern Cape			
11.2.4	Free State			
11.2.5	Kwa-Zulu Natal			
11.2.6	North West			
11.2.7	Gauteng			
11.2.8	Mpumalanga			
11.2.9	Limpopo			

11.2.10	Outside of South Africa (specify): ……………………………		
12.	Who pays for your studies? (Tick the Boxes that apply to you)		
12.1	My parents		
12.2	Another family member		
12.3	A sponsor		
12.4	On my own		
12.5	NSFAS Bursary		
12.5	Study loan (bank)		
12.6	Bursary from private company bursary		

13.	Children or siblings in the family? (Tick the Box that applies to you)				
13.1	Do you have children	Yes		No	
13.2	If you answered Yes in 12.1, please specify number of children:………………..				
13.3	Does your child(ren) live with you	Yes		No	
13.4	Do you care for other children in the family?	Yes		No	
13.5	If you answered Yes in 12.4, please specify number of children:………………..				

14.	Work and /or study status. (Tick one option below that applies to you)	
14.1	I have a part-time job	
14.2	I have a full-time job	
14.3	I am looking for a job	
14.4	I work on weekends and on shifts	
14.5	I only focus on my studies	

15.	If you are working please indicate the number of hours worked per week (Tick one option below that applies to you)						
<8 hours		8-16 hours		16-24 hours		>24 hours	

16.	Do you have any other responsibilities, outside of you studies?	
16.2	No	
16.3	Yes, specify: ………………………………………………………………………………………	
16.4	If yes, on average how much time do you spend each week on this?: ……………………	

17.	Was tourism management your first choice of course to study?	
17.1	Yes	
17.2	No. What was your first option? Specify: ………………………………………………………………………………	

SECTION B – Learning preferences - In this section we are interested in knowing your learning preferences outside of the classroom

18.	Indicate degree to which you agree with the following statements: (Tick the Box best suites your answer based on the following scale) 1-Strongly Disagree 2- Disagree 3 – Neutral 4-Agree 5-Strongly Agree					
18.1	I make my own study notes from the text book / notes given in class	1	2	3	4	5
18.2	I keep my class notes well organised and filed	1	2	3	4	5
18.3	I regularly study in a group with classmates	1	2	3	4	5
18.4	I prefer to study alone	1	2	3	4	5
18.5	I try to find additional information and reading to improve my understanding of my subjects	1	2	3	4	5
18.6	I translate my study notes into my home language	1	2	3	4	5
18.7	I make use of the tutors available	1	2	3	4	5
18.8	I would benefit from a tutor speaks my home language	1	2	3	4	5
18.9	I make use of the support services offered by the university learning centre	1	2	3	4	5
18.10	During assessment time, or when I have an assignment due I work/study late into the night	1	2	3	4	5
18.11	During assessment time, or when I have an assignment due I wake up very early in the morning to study/work on my assignments	1	2	3	4	5
18.12	I make use of stimulants such as coffee, Redbull or tablets containing caffeine to help me to stay awake	1	2	3	4	5
18.13	I have a private and quiet place to study where I am not disturbed or distracted	1	2	3	4	5
18.14	I like to study with music or the TV on in the background	1	2	3	4	5
18.15	I prefer to study in silence	1	2	3	4	5
18.16	I study according to a study timetable I set for myself	1	2	3	4	5
18.18	I am disciplined at managing my time	1	2	3	4	5
18.19	My eating habits change for the worse during assessment time or when I have a lot of assignment work to do	1	2	3	4	5
18.20	I tend to eat more and eat unhealthy foods during busy study times	1	2	3	4	5
18.21	I tend to eat less when I am stressed during busy study times	1	2	3	4	5
18.22	I am easily distracted from my work and studying	1	2	3	4	5
18.23	I am happy with the amount of time I spend studying and preparing for my subjects	1	2	3	4	5
18.24	I know I could spend more constructive time on my studies if I tried	1	2	3	4	5
18.25	I spend most of my personal study time on campus	1	2	3	4	5
18.26	I spend most of my personal study time at the place where I stay	1	2	3	4	5
18.27	I make use of the campus library to study	1	2	3	4	5
18.28	I do well at balancing my time between studying and socialising	1	2	3	4	5
18.29	I make time to exercise	1	2	3	4	5

SECTION C – ACADEMIC ENGAGEMENT - In this section we are interested in knowing your preferences when studying and participating during class time

19.	Please answer yes or no, for each of the questions below:		
19.1	I attend all my classes 90% of the time	Y	N
19.2	There are some lecturers' classes that I prefer not to attend	Y	N

20a.	What reasons do you have for missing face-to-face classes: (Tick the Boxes that apply to you)	
20a.1	Illness	
20a.2	Other responsibilities	
20a.3	I do not find class time beneficial	
20a.4	I do not attend classes because I sometimes just don't feel like going to class	
20a.5	I have transport problems	
20a.6	Other (specify): …………………………………………………………………….	
20b	What action do you take if you miss a class? (Tick the Box that applies to you)	
20b.1	I contact the relevant lecturer and try to find out what work I missed	
20b.2	I ask a friend in the class to update me and get the notes missed from them	
20b.3	None, I just attend the next class	
20b.4	Other (specify): …………………………………………………………………….	

21.		Indicate the degree to which you agree with the following statements: (Tick the Box best suites your answer based on the following scale) 1-Strongly Disagree 2- Disagree 3 – Neutral 4-Agree 5-Strongly Agree					
21.1		I am always on time for classes	1	2	3	4	5
21.2		I prepare for each class by reading through the notes of the previous lesson	1	2	3	4	5
21.3		I am able to concentrate in class for most of the lesson	1	2	3	4	5
21.4		It helps with concentration when lecturers give short breaks during the class time	1	2	3	4	5
21.5		I fall asleep easily in class	1	2	3	4	5
21.6		I take down my own notes during class	1	2	3	4	5
21.7		The teaching style of a lecturer has on impact on how well I perform	1	2	3	4	5
21.8		I have adjusted from high school to tertiary education	1	2	3	4	5
21.9		When I have a problem with a particular lecturer I either address the lecturer myself, or I address the issue with someone else who will take it up with the lecturer	1	2	3	4	5

22.	When I study, I learn better by: (Tick the Box that applies to you)	
22.1	Reading things over and over until I have memorised them	
22.2	Writing things out and doing practice questions	
22.3	When I study it helps me to remember if I speak the words out loud	
22.4	Other (specify): …………………………………………………………………….	

SECTION D – STUDENT ENGAGEMENT: In this section we are interested in knowing your actions before, during and after a formal test and assignments:

23.	Indicate the degree to which you agree with the following statements on activities before a formal test: (Tick the Box that best suits your answer based on the following scale) 1-Strongly Disagree 2-Disagree 3-Neutral Agree-4 5-Strongly Agree

23.1	I prepare better for tests by studying after a unit/chapter is covered in class	1	2	3	4	5
23.2	I prepare for a test weeks in advance	1	2	3	4	5
23.3	I prefer to only study for a test a few days before the test	1	2	3	4	5
23.4	I put off studying for a test until a night or 2 before the test	1	2	3	4	5

24.	Indicate the degree to which you agree with the following statements on actions during a formal test: (Tick the Box that best suits your answer based on the following scale) 1-Strongly Disagree 2-Disagree 3-Neutral Agree-4 5-Strongly Agree					
24.1	I get stressed and nervous about tests and this affects my performance	1	2	3	4	5
24.2	I read the instructions on the front cover of the question paper	1	2	3	4	5
24.3	I read through all the questions carefully before I start writing	1	2	3	4	5
24.4	I plan my time for each question	1	2	3	4	5
24.5	I answer the easier questions first	1	2	3	4	5
24.6	I attempt to answer all questions, even the ones I am unsure of	1	2	3	4	5
24.7	I carefully read through and check all my answers before submitting my answer book	1	2	3	4	5
24.8	I regularly finish writing well before the allowed time for a paper	1	2	3	4	5
24.9	Before each test or assignment I know exactly what weighting it holds	1	2	3	4	5
24.10	I put off studying for a test until a night or 2 before the test	1	2	3	4	5

25.	Indicate the degree to which you agree with the following statements on your actions after a formal test: (Tick the Box that best suits your answer based on the following scale) 1-Strongly Disagree 2-Disagree 3-Neutral Agree-4 5-Strongly Agree					
25.1	I start working on an assignment immediately when I receive it	1	2	3	4	5
25.2	I procrastinate and leave doing my assignment too long, so am pressured to get it completed by the deadline	1	2	3	4	5
25.3	I ask my lecturer for advice when I am busy with the assignment	1	2	3	4	5
25.4	I get help from other students or tutors when I need to complete an assignment	1	2	3	4	5
25.5	When I get my test paper or assignment back I thoroughly check through it to understand my mistakes, and if need be I discuss these with my lecturer	1	2	3	4	5
25.6	I use my previous tests as revision papers for examinations	1	2	3	4	5

SECTION E – STUDENT PERCEPTIONS OF THE LEARNING ENVIRONMENT:

26.		Indicate the degree to which you would rate the following facilities and services on campus: (Tick the Box best suits your answer based on the following scale) 0-N/A 1 excellent 2- Good 3-Neutral 3-Average 4- bad						
26.1	Library		N/A	1	2	3	4	5
26.2	Cafeteria		N/A	1	2	3	4	5
26.3	Printing facilities		N/A	1	2	3	4	5
26.4	Computer labs for personal study/assignments		N/A	1	2	3	4	5
26.5	Security		N/A	1	2	3	4	5
26.6	University transport							
26.6	Administration		N/A	1	2	3	4	5

26.7	General condition of campus	N/A	1	2	3	4	5
26.8	Any other services you want to rate, not mentioned above: (specify): ……………………………………………………………………………	N/A	1	2	3	4	5

27.	Please answer yes or no, for each question below: (Tick the Box that applies to you)		
27.1	Do you have all your prescribed text books for all your subjects?	Y	N
27.2	Do you regularly make use of the books and other materials available in the university library?	Y	N
27.3	Do you make use of short loan in the library?	Y	N
27.4	Do you use any other library besides the library at your university?	Y	N
27.5	Do you have internet access at the place where you stay?	Y	N
27.6	Do you have your own laptop/computer?	Y	N
27.7	Do you have easy access to a laptop/computer off campus?	Y	N

SECTION F – IMPACT OF COVID-19 –REMOTE LEARNING ON YOUR STUDIES:

28.	Indicate the degree to which you would rate the impact of remote learning on your studies: (Tick the Box best suites your answer based on the following scale) 0-N/A 1-Strongly Disagree 2- Disagree 3 - Neutral 4-Agree 5-Stronly Agree						
28.1	I enjoyed remote learning during lockdown	N/A	1	2	3	4	5
28.2	I prefer to attend live online classes	N/A	1	2	3	4	5
28.3	I prefer to listen to class recording and not attend online	N/A	1	2	3	4	5
28.4	I prefer attending classes on campus more than learning remotely	N/A	1	2	3	4	5
28.5	I prefer attending classes remotely online, rather than attending on campus	N/A	1	2	3	4	5
28.6	It is easy to access books from the online library	N/A					
28.7	I was able to access books and library materials online	N/A	1	2	3	4	5
28.8	My academic performance was NEGATIVELY impacted by remote learning	N/A	1	2	3	4	5
28.9	I am/was able to complete all my assessments during remote learning	N/A	1	2	3	4	5
28.10	I managed to submit all my assessment on time during remote learning	N/A	1	2	3	4	5
28.11	Group assignments were easy to complete during remote learning	N/A	1	2	3	4	5

29.	What action do you take if you miss online class? (Tick the ONE option below that mostly applies to you)	
29.1	I find out from my class mates what was done in class	
29.2	I listened to the class recording, but I do not listen to the whole class recording	
29.3	I listened to the whole class recording	
29.4	I cannot listen to class recordings, I wait for the next class online	
29.5	Other (specify): ………………………………………………………………………………………	

30.	Forms of communication available to students during remote learning (Tick ALL the Boxes that apply to you)	

30.1	We have weekly announcements from our lecturers on our online learning platform	
30.2	We have a class WhatsApp group, managed by our class rep	
30.3	We have a class WhatsApp group, managed by our lecturer	
30.4	We do not have a WhatsApp group for our classes	
30.5	Other communication platforms? Specify:…………………………………………………………………………………………………….	

31.	Students' preferred form of communication during remote learning (Rate the following items from most 5-most preferred, to 1-least preferred method to you) 0-N/A　　　1-Strongly Disagree　　　2- Disagree　　　3 - Neutral　　　　4-Agree 5-Stronly Agree						
31.1	During remote learning I prefer to directly e-mail my lectures for information	N/A	1	2	3	4	5
31.2	During remote learning I prefer to get information from my class WhatsApp group	N/A	1	2	3	4	5
31.3	During remote learning I prefer to contact my lecturer on WhatsApp	N/A	1	2	3	4	5
31.4	During remote learning I prefer to get information from the class rep	N/A	1	2	3	4	5
31.5	During remote learning I prefer to get information from the LMS	N/A	1	2	3	4	5

32.	Type of device(s) you use(d) for remote learning (Tick ONE option below that applies to you)						
32.1	Laptop						
32.2	Tablet						
32.3	Smart phone						
32.4	Laptop and smart phone						
32.5	Tablet and smart phone						
32.6	Other: specify: ………………………………………………………………………………						
33.	Access to resources for learning. Indicate the degree to which you would rate availability of resources during remote learning to you: (Tick the Box best suites your answer based on the following scale) 0-N/A　　　1-Never　　　2- Seldom　　　3 – Sometimes　4-Often 5-Always						
33.1	Electricity (when not load shedding)	N/A	1	2	3	4	5
33.2	Fiber network	N/A	1	2	3	4	5
33.3	Personal cellphone data	N/A	1	2	3	4	5
33.4	University provided data	N/A	1	2	3	4	5
33.5	VPN	N/A	1	2	3	4	5
33.6	University learner management (LMS)	N/A	1	2	3	4	5
33.7	University e-mails	N/A	1	2	3	4	5

34.	What are the connectivity options you use to access online learning (Tick ALL the options below that apply to you)	
34.1	VPN	
34.2	University data	
34.3	Own data	

34.4	Network fibre	
34.5	Other: specify	

35.	The following connectivity resources were always available during remote learning: (Tick the Box best suits your answer based on the following scale) 0-N/A 1-Strongly Disagree 2- Disagree 3 - Neutral 4-Agree 5-Stronly Agree						
35.1	Electricity	N/A	1	2	3	4	5
35.2	Cellphone connectivity in your area	N/A	1	2	3	4	5
35.3	Wifi connectivity	N/A	1	2	3	4	5
35.4	University data	N/A	1	2	3	4	5
35.5	VPN	N/A	1	2	3	4	5

Thank You for taking the time to participate in this study.

APPENDIX H: Letter confirming editing of thesis

SD Dombo University of Business and Integrated Development
Studies Faculty of Public Policy and Governance
Post Office Box WA64
Wa, Upper West
Region Ghana

October 24 2022

TO WHOM IT MAYCONCERN

Confirmation of language and technical editing of Pavla Phitlhelelo Mokoena's
doctoral thesis

This is to confirm that I edited the thesis of the above doctoral candidate, entitled 'New-age
tourism students' learning preferences and implications for tourism education at universities
of technology', submitted to Cape Peninsula University of Technology, Cape Town. I read the
thesis thoroughly and provided feedback, included recommendations on language and style,
and technical issues for rectification in order to improve its quality as a scholarly piece of
work.

With regard to language and style, the thesis reflected a high standard of scholarly language
in line with logical presentation and sound, logical argumentation expected of work at the
doctoral level. Nevertheless, I pointed out a few problematic aspects of language in scholarly
writing such as long sentences, sentences with unclear meanings and incomplete sentences.

On technical requirements, I pointed out a few in-text citations not reflected in the list of
references and some sources in References not cited in the thesis. Additionally, I gave
feedback relating to the Table of Contents correctly reflecting the exact wording of headings;
subheadings and their correct page numbers and ensuring all Tables and Figures are referred
to correctly. Finally, i advised on the numbering of preliminary pages with Roman numbers
as standard practice in theses.

In line with my mandate to edit and improve the quality of the thesis, t did not, in any way
change or attempt to change the substance of the thesis, except recommending changes to
enhance clarity. Should there be a need to verify the authenticity of this letter, please contact
me by email: dassabie@yahoo.co.uk.

Yours sincerely

Prof Maurice Oscar Dassah