



**SCHOOL OF EDUCATION  
COLLEGE OF HUMANITIES**

**HONOURS GRADUATES' EXPERIENCES OF LEARNING  
RESEARCH THROUGH DISTANCE EDUCATION**

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## ABSTRACT

One of the core functions of universities is to provide education and training in research aimed at producing highly skilled graduates who are capable of transferring intellectual, technical and research expertise to wide-ranging global contexts. The achievement of such research competencies may be compromised due to the mode of education that a university offers. This qualitative case-study was undertaken to explore the experiences of Honours graduates who learned the research process through a Research Methodology (RM) module that was offered via the distance mode of education at the University of South Africa (UNISA). Underpinned by the socio-cultural theories of learning, and phenomenography, the study sought to understand the participants' qualitatively different experiences of learning research through the RM module via the distance mode and the extent to which the learning was transferred into their current research endeavors as postgraduate students or researchers in the world of work.

Data was produced through online interviews, (visual and audio) with ten purposively selected participants who met the following inclusion criteria:

1. The participant had studied and passed the RM module at an honors level;
2. The participant had registered for the RM module through the distance education mode at UNISA;
3. Post completion of the module, participants had an opportunity to engage in a research as part of their work or study purposes where they had to apply different knowledge, skills and competencies involved in conducting a research study.
4. Participant owns a smartphone or a computer that enables them to participate in a virtual interview.

Analysis of data revealed that some participants who studied research through distance education from the RM module, failed to meet the module's learning outcomes.

Some theoretical explanations for this are as follows: distance education requires self-motivated students. Self-motivated students conduct their own investigations on the modules they have registered for prior to the teaching and learning of that module/s to develop better understanding of the program they have enrolled for. Some participants were discovered to

have not attempted to read the module outline, which discusses the purpose and the learning outcomes of the module. Some participants read the module learning outcomes but found it difficult to relate them to their future endeavors. The relevance of the module was only realized when participants were required to conduct their own research, to further their studies or for employment requirements.

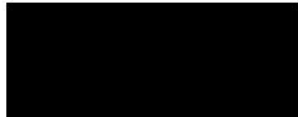
The above findings reveal that distance education institutions require improvements and transformations to engage students in active learning of research skills despite the lack of face-to-face contact with them. This will result in the production of quality graduates who are able to enter into any research environment and be able to apply the requisite research knowledge, skills and attitudes adequately.

## DECLARATION

I, Nonkululeko Ngutshana declare that this dissertation comprises only my original work, which has been conducted under the supervision of Prof. Sarasvathie Reddy titled: “**Honours Graduates’ experiences of Learning Research through Distance Education**” and that due acknowledgements have been made in the text to all other material that was used in the study.

This work has not been submitted for any other degree.

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This dissertation has been submitted with/ without my approval.

Signed



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: \_\_\_\_\_

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I would like to show gratitude to my supervisor, Prof. Sarasvathie Reddy for the endless support she gave me throughout the project duration. Your guidance and insightful comments have helped me to make this possible. I am extremely grateful.

I would also like to sincerely thank the graduates who were willingly and openly involved in this study and who provided invaluable information for this report. Individuals and their details are not identified to conform to ethical requirements placed on reports of research of this nature. This should, in no way be viewed as devaluing the commitment and contribution played by every one that was involved in this study. Without them, this study would have not been possible.

UNISA Research and Innovation directors and staff who assisted and granted me Gatekeepers permission (Dr Retha Visagie and Prof Les Labuschagne), thank you. A big thank you to Sthembiso Pollen Mkhize for your contribution towards my work.

Finally, to my family for their unconditional love, support and understanding when at times I could not give them the attention they deserve (especially my husband, Sifiso Mnxati, who is always my leg to stand on; my sisters: Andile Ngutshana (umntaka ma), Lungie Cele and Zinhle Madlala, son Owethu). Ngiyabonga.

## **DEDICATION**

This dissertation is dedicated to my late mother. When you left this earth, I gained an angel.

Ngiyabonga ntombi kaNgutyana, MaMsuthu, Makhalellovu, Madikizela, Msengeshe. I know you are smiling down on me.

## ABBREVIATIONS

- CAQDAS - Computer assisted qualitative data analysis
- CT - Cape Town
- DHET - Department of Higher Education and Training
- DL - Distance Learning
- EC - Eastern Cape
- F/T - Full-time
- GP - Gauteng Province
- HE - Higher Education
- HEIs - Higher Education Institutions
- HSSREC - Humanities and Social Sciences Research Ethics Committee
- I - The researcher
- ICT - Information Computer Technology
- IPA - Interpretative Phenomenological Analysis
- IT - Information Technology
- KZN - KwaZulu Natal
- MIRS - Motivation, Inspiration, Realization and Solution
- MUT - Mangosuthu University of Technology
- ODL - Open and distance learning
- P/T - Part-time
- POPIA - Protection of Personal Information Act, 2013
- PQM - Programme Quality Mix
- RM - Research Methodology
- RPSC - Research Permission Sub-Committee
- SRE - Scientific Research in Education
- SRIPCC - Senate Research, Innovation, Postgraduate Degrees and Commercialisation Committee
- UCT - University of Cape Town
- UKZN - University of KwaZulu Natal
- UNISA - University of South Africa
- UP - University of Pretoria
- WSU - Walter Sisulu University

## DEFINITION OF CONCEPTS

- **Bracketing process** – the temporary suspension of a researcher’s beliefs, biases and subjective interpretations to ensure the participant’s beliefs and the research material are not obfuscated through a lens of a researcher’s biases.
- **Constructivism** – a theory that says learners construct knowledge rather than just passively take in information. As people experience the world and reflect upon those experiences. This is a theory that was used for this study.
- **Distance learning** – a method of learning in which lectures are broadcast or lessons are conducted by correspondence, without the student needing to attend physically.
- **Higher education** – education at universities or similar educational establishments.
- **I** – the researcher.
- **Interview questions** – the questions used to interview participants in order to gather information for the study.
- **Massification** – mass enrollments resulting from overwhelming numbers of students entering universities and a proliferation of higher education that need to be catered for.
- **Pedagogy** – the method and practice of teaching, especially as an academic subject or theoretical concept.
- **Phenomenography** – a qualitative research methodology that investigates the qualitatively different ways in which people experience something. In this study, it investigated the way in which honours graduates’ experienced learning research through distance education.
- **Phenomenology** – an approach that concentrates on the study of consciousness and the objects of direct experience.
- **Research** – a systematic investigation in order to establish facts and reach new conclusions.
- **Research methodology** – the specific procedures used to identify, select, process and analyze data on this study.
- **Research Methodology Module** – the module that graduates were investigated on for this study.
- **Research questions** – the questions that the study set out to answer.
- **Research skills** – the ability to search for, locate, extract, organize, evaluate and use or present information that is relevant to a specific study.
- **Theory** – a logical exploration of system of beliefs and assumptions.

- **Traditional learning approach** – a setting where a teacher or lecturer communicates with a group of students in a typical classroom set-up. The students attend the class for a fixed duration and learn specific subjects.

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## **CHAPTER 1 INTRODUCTION AND CONTEXT**

### **1.1 Introduction**

This chapter discusses the background and context of the study. It introduces the University of South Africa (UNISA) an Open Distance Higher Education Institution (HEI) where the honours students (the participants) were registered for a module called Research Methodology in their Honours degrees. This study aimed to understand honours graduates' experiences of learning research through a Research Methodology module offered via the distance education mode. It further sought to determine the extent to which the research competencies (skills, knowledge, and attitudes) gained from the Module are transferred to graduates' current research engagements either as postgraduate research students or in the world of research work.

### **1.2 Background and context**

Research and academic writing skills are increasingly in demand globally (Aguado, 2009; Hoffman et al., 2017). One of the core functions of universities is to provide invaluable education and training in research aimed at producing highly skilled graduates who are capable of transferring intellectual and technical expertise to wide-ranging global contexts (Becker et al., 2018). In higher education, some universities only offer distance education and are called Open Universities (Paudel, 2021). This study was located at the University of South Africa (UNISA) which is one of the leading Open Universities in Africa with more than 300,000 student enrolments (Msomi, 2018). UNISA offers different Research Methodology Modules across the various disciplines as part of the Honours degrees that are pitched at NQF Level 7 of the National Qualifications Framework (NQF) (SAQA, 2012). The modules may differ slightly based on the field of study of the Honours degree, nevertheless, the purposes and learning outcomes are common. Some of the research modules offered include Research Methodology in Criminology (CMY2606), Research Methodology for Law (MPLLW91), Research Methodology in Industrial and Organisational Psychology (MPEMS94), Research Methodology in Police Science, Legal Research Methodology, Biological Research Methodology, Criminal Justice Research Methodology, to name just a few (UNISA, 2020a).

According to the UNISA's tutorial handbook (2018), the fundamental purpose of the Research Methodology Module is to “develop post-graduate-level knowledge, skills and competencies that enable students to be competent researchers in their field of study” (UNISA, 2018, p. 3) . Some of the learning outcomes of the Module require students to “understand the terminology and procedures of research in their field of study, to be able to apply practical skills involved in conducting research in their field of study/work and to have an understanding of different approaches to undertake research” (UNISA, 2018, p. 3). In the context of UNISA, the pedagogical strategy that underpins the teaching and learning of the module is distance based. This means that the main mode of communication between lecturer and student is either via internet and/or courier services. All study material is available on the institution's website and is couriered to students to assist those who do not have access to internet or printers.

Post-registration, the first tutorial handbook or letter is issued to each registered student. This is the most important communication as it includes an introduction to the module, purpose and outcomes of the module as well as a study plan. The purpose of this tutorial handbook is for students to understand the module and be provided with an overview of the module. The handbook also includes the structure of the module by listing the main topics aimed to be covered. The module study resources such as prescribed books, library services and resources information are also listed in the tutorial handbook. The tutorial letter or handbook is usually referred to as the starter pack for the module.

According to the UNISA website, UNISA provides student support services to guide and assist students to become successful in distance education. Support services include, MyUnisa website (<http://myunisa.ac.za> ); telecentres which are available in various locations across South Africa ([www.unisa.ac.za/telecentres](http://www.unisa.ac.za/telecentres) ); discussion fora on MyUnisa to provide opportunity for students to interact with each other; workbooks consisting of activities and lecturers contact details are provided to students for academic queries that are not dealt with in the discussion fora. MyUnisa was introduced in 2006 as an online learning environment and students eagerly embraced the online learning environment (De Beer et al., 2015, p. 59)

In preparation of students' expectations, the assessment plan is communicated at the beginning of the module. Summative assessment is in the form of three assignments and an examination. Assignment 1 and 2 consists of multiple choice questions and the third

assignment has paragraph-type questions (UNISA, 2018). This is an example of the strategies used in teaching and learning of one of the Research Methodology modules (HBEDTRD) through distance education that this study focuses on. As one of the fundamental components of the honours degree, this module is intended to prepare students for research-based postgraduate studies in a particular field (DoE, 2011).

Despite the teaching and learning measures that are put in place by institutions, many disciplines across universities (open and contact) have reported teaching and learning problems by students who undertake Research Methodology modules (Goswami, 2014; Fish, 2015; Ponnuswami & Harris, 2017; Sahli & Benaissi, 2018; Nilson & Goodson, 2021). Majority of students in higher education were reported to experience increased levels of psychological distress and disengagement due to the feeling of incompetence when exposed to elements perceived not to be in their current field of study or of interest (Howell, 2009; Ouweneel et al., 2011; Van Zyl & Rothmann, 2012; De Beer et al., 2015). Universities have put in substantial resources and personnel in order to assist students in acquiring research skills but studies have shown that the learning outcomes of Research Methodology modules and other related courses on research were not easily attained by most students during undergraduate and postgraduate programmes (Hénard & Roseveare, 2012; Hyland, 2021).

The culture of conducting research is important in the research and development agenda of countries since this contributes to the well-being and economic growth of the country (Meerah et al., 2012, p. 621) This study was, therefore, aimed at understanding postgraduate students' experiences of learning research via such a module albeit through the distance education mode. This study differs from the previous studies conducted by Ponnuswami and Harris (2017), since their study reflected educators' perspectives of teaching and learning research skills, as opposed to the students' perspectives. It also reflects a different perspective compared to the study conducted by Shaw et al. (2013) where data was collected from undergraduate students who were not yet selected for entry into any other postgraduate program or honours degree. This study drew on the different perspectives from the above-mentioned scholars, by focusing particularly on postgraduate students who had graduated and had been in a position where they were required to conduct their own research either as postgraduate research students or for the research work that they were currently engaged in.

### **1.3 Rationale of the study**

Based on a comparison study conducted by Cavalli (2017) of on-campus and distance learning courses, it illustrated that distance students reported lower confidence in their understanding of course concepts. Relatively to Cavalli's study, my personal experience of lower confidence of understanding research concepts resulted in personal self-reflection of learning research from a Research Methodology module at honours level, through distance education. I had passed the Research Methodology module as part of the requirements to obtain my honours degree. Post-graduation I had taken a decision to study further. Upon registration for a Masters' programme, at a traditional contact university, my level of research competencies became personally questionable. The lack of confidence and a minimum level of understanding of the research processes raised questions around my experience of learning research skills at the honours level.

Questions emerged around whether my lack of knowledge of the research processes resulted from my own lack of motivation, inability to learn the module material, lack of preparedness or the distance delivery mode of the pedagogy could have influenced the extent to which I lacked the required research competencies for the masters degree. According to the studies conducted by Meerah and his peers and another one by Cooksey and his peers, one of the reasons for postgraduates experiencing difficulties is the lack of preparedness in research skills prior to embarking their research work (Meerah et al., 2012; Cooksey & McDonald, 2019). These questions became my primary motivation for self-introspection and motivated an investigation of other honours graduates in order to discover if they experienced similar concerns regarding their research competencies while pursuing further research qualifications or in their research work.

The study thus aimed to provide some insight from the graduates' perspectives based on their experiences of learning research through distance education. It hopes to contribute to the curriculum design and delivery of such modules as well as to raise awareness to students of the importance of such research foundations to assist them in becoming competent researchers by developing the ability to identify, analyze and deal with complex and real-world problems using the skills and knowledge from Research Methodology modules.

#### **1.4 Significance of the study**

The study aims to contribute towards the teaching and learning of research skills and knowledge from a Research Methodology module at honours level through the distance mode. Things are always changing within the realm of educational planning, such as, the structure of the education system, curriculum, modes of teaching, methods of teacher training, etc. These changes may either improve or worsen the quality of education. These changes also affect the process of policymaking. Various recommendations and policies cannot be meaningful unless they are based on data collected through research. It is, therefore, important for educationalists to have a sound knowledge of students' experiences of learning research through research modules such as the one that this study foregrounds (Mafenya, 2014). The foundation for the research skills is to be laid and developed in the best way possible to produce competent researchers that are required in the world.

Students with the fundamental understanding of the module contribute in inspiring students to engage in their own research projects. Producing competent researchers is beneficial to an individual, the institution and society. It also contributes to the country's economy and development (Mafenya, 2014). A module that aims at teaching research skills and knowledge is thus key in achieving that (Mafenya, 2014). Research also leads to creation and innovation of new technologies and products that can improve and solve a diversity of political, socio-economic, cultural, technological and environmental issues (Edwards-Schachter, 2018). Research requires requisite skills (Gyuris, 2018) and for higher education institutions to be able to play its role, it is important to understand the experiences of graduates who have studied research skills and knowledge through the various Research Methodology modules and to determine the extent to which they are able to apply those skills to their research endeavors.

## **1.5 Statement of the problem**

Teaching research skills is believed to be a basic task in the higher education space but according to the literature, it appears to be one of the hardest tasks (Murtonen & Lehtinen, 2005; Aguado, 2009; Crooks et al., 2010; Ponnuswami & Harris, 2017; Simonson et al., 2019a). A study conducted by Schulze and Lemmer (2017) found that students undertaking the masters' level dissertation reflected no evidence of having acquired the required research skills at honours level. According to Schulze (2017), the Research Methodology module has been identified as a "problem course" at several universities and is usually a source of "student annoyance" (p.54). Since students experience such "annoyances", this may influence their abilities to achieve the stipulated learning outcomes of the module (Schulze & Lemmer, 2017, p. 55). The achievement of such research competencies may be compromised due to the distance mode of education that this study was interested in researching. It is therefore necessary for Higher Education Institutions (HEIs) to gain better understanding of students' experiences of learning research at honours level with a view of determining the extent to which the research competencies are transferred to higher postgraduate studies and/or the world of research work (Murtonen et al., 2017). This study thus aimed at exploring honours graduates' experiences of learning research through such a module in the distance mode and their ability to transfer the learning to their current research engagements.

## **1.6 Critical Research Questions and Research Objectives**

This study was aimed at understanding graduates' learning experiences of the Research Methodology module via distance education by allowing graduates to reflect on the way they learned the content of the module and describing it in their own words. The study further sought to determine the extent to which graduates applied competencies gained from the module to their current research engagements. The research questions were as follows:

- What are honours graduates' experiences of learning research from the Research Methodology module via distance education?

- How do honours graduates relate their experiences of learning research through the Research Methodology module via distance education to their current research engagements? and
- Why do honours graduates relate their experiences of learning research, through the Research Methodology module via distance education, to their current research engagements in the way that they do?

Answering these questions was achieved by using a qualitative descriptive design and the phenomenographic approach which has a pedagogical origin that intended to answer questions about learning and thinking (Marton, 1981). The choice of this approach for this study was for describing the various ways in which graduates experienced learning research skills through distance education. Data was produced by conducting interviews with graduates who completed the module through distance education. The selection process of participants included graduates who had previously been exposed to research after completing the module. This requirement assisted in discussing the knowledge and expertise utilized from the module to conduct their own research either as postgraduate students or in their research work.

### **1.7 Limitations of the study**

In a qualitative research study similar to this, the researcher is pre-eminently the research tool because all data are filtered through the eyes of the data collector. Findings to such studies are considered to be subjective and intuitive (Theofanidis & Fountouki, 2018). Personal discipline assisted in avoiding excessive subjectivity. This required acceptance that participants may hold views and beliefs that are very different from mine as a researcher (L. Haven & Van Grootel, 2019, p. 231).

In comparison to other studies that consist of more than fifty participants, this study opted for a small sample size, consisting of ten participants. Selected participants had previously been and/or currently engaged in their own research projects, which may have influenced their responses because most researchers may not reveal that they did not have the required knowledge when they first conducted research. That may have led to participants withholding some information, limiting the study. The purpose for the participants' first research could have been for academic and/or employment purposes.

Either way, it was important to discover how they faced the challenges related to approaching a research project for the first time.

The use of standardized open-ended questions for interviews, which was conducted using standardized wording of questions, may have constrained and limited the naturalness and relevance of questions and answers. There was also little flexibility in relating the interview to particular individuals and circumstances (Cohen et al., 2018).

Due to the COVID-19 pandemic, face-to-face interviews were not possible. For the purpose of the study, the use of video calls (such as Zoom, WhatsApp, FaceTime, Skype or Google-meet-video) was utilised to conduct the interviews and produce data. As a researcher, I was required to be prepared that the network connections could have interrupted the interviews and be aware of the difficulties of controlling participants during the interviews while located in a different location. Participants were requested to find a location where they would be uninterrupted during the interviews for a clear recording. During some interviews, interruptions were experienced. This was either due to the network interruptions or due to family responsibilities. During the pandemic, most companies were forced to instruct their employees to work from home. Therefore, whatever time the interview was scheduled for, participants were always going to be at home.

## **1.8 Structure of the dissertation**

This dissertation is divided into seven chapters: Chapter 1- *Introduction and Context*; Chapter 2- *Literature Review*; Chapter 3- *Theoretical Framework*; Chapter 4- *Research Methodology and Design*; Chapter 5- *Presentation of the Findings*; Chapter 6- *Discussion of Results* and Chapter 7- *Conclusion*.

### ***Chapter 1 Introduction and Context***

Introduction is the first chapter of this dissertation. It presents an explanation of the title for this study and the context of the study. It explains how the study will contribute towards teaching and learning of research skills from Research Methodology Module through distance education. The detailed research questions were identified and research objectives explained. The summary of how the critical questions were answered was also discussed. This chapter provided an outline of the dissertation

### ***Chapter 2 Literature Review***

The literature review is structured as follows: Introduction of distance education; Teaching and learning via distance education; Research education via distance; Structure of the Research Methodology module; International and national literature on honours level research programmes; Honours level graduates' attributes; Research competencies for Master's and PhD programmes and Research competencies for the world of work. All these sub-headings provide brief descriptions of the studies previously conducted by other researchers in higher education, distance education as well as teaching and learning of research skills.

### ***Chapter 3 Theoretical Framework***

This chapter is an outline of the theoretical framework that underpinned the study. The theory of constructivism was used as the lenses through which the data was produced and analyzed for this study. The study also had to draw on socio-cultural theories of learning that originated from the writings of Vygotsky, whose works are widely renowned for pinpointing the importance of social interactions and culture in the development of higher-order thinking skills.

#### ***Chapter 4 Research Methodology and Design***

The chapter describes the research methodology and design of the study. It focuses on research tools used in the study, research design, research instruments and the process utilized in the selection of participants. The ethical considerations and credibility of the study are described in this chapter.

#### ***Chapter 5 Presentation of the findings***

This chapter summarizes the key findings of the research. The findings have been grouped together into emergent themes. Evidence drawing from the interview transcripts are presented to strengthen the arguments raised. A first level of interpretation of the data is also presented.

#### ***Chapter 6 Discussion of results***

This chapter presents the discussion of the findings in terms of relating them to the literature and theories engaged. It allows for the theoretical explanation of the findings.

#### ***Chapter 7 Conclusion***

The chapter presents the conclusions based on the findings. It also presents recommendations for further research that will inform distance education providers on how best to design and implement research methodology modules that instill life-long research knowledge and skills in their graduates.

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## CHAPTER 2: LITERATURE REVIEW

### 2.1 Introduction

The chapter focuses on the review of local and international literature on teaching and learning research via distance education. As stated in the previous chapter, the overall aim of this study was to explore and understand the experiences of Honour's graduates in learning research through the Research Methodology module that is offered via the distance education mode at UNISA. The field of distance education has changed significantly in the past twenty years and many studies show the need for continued focus on understanding the experiences of students who study via distance education.

Acquiring research skills for the purposes of continuing with postgraduate research as Master's and PhD candidates or for the purposes of research driven careers in academia has been proven to be a challenge for many university graduates (Murtonen & Lehtinen, 2005; Crooks et al., 2010; Kay H. Braguglia & Kanata A. Jackson, 2012; Laurie & Elizabeth, 2012; Schulze & Lemmer, 2017). Prensky (2012) argued that the problem with the current education system is not *how* but rather *what* is taught to students. This review of literature seeks to present research and studies pertaining to how postgraduates experience learning research skills via the distance education mode and the extent to which these skills are then transferred to their current research contexts, either as research specialists or in the world of research work. In addition, the chapter covers key topics on research skills, distance education, research competence, research education, and research training, teaching and learning.

## **2.2 Distance Education: research-history and present context**

Distance learning has a long history in the basic and higher education sectors (Bolton, 1986). With the onset of challenges caused by massification of face-to-face education, public universities devised several approaches and strategies to cope with it. One such strategy was the introduction of open and distance learning institutions. This intervention decreased the number of direct contact hours required between the students and instructors (Mohamedbhai, 2008). The distance education approach served to increase enrolment, despite the limited resources of higher education and training (Mohamedbhai, 2008). According to Gunawardena and McIsaac (2013), distance education is a structured learning format in which the student and the instructor are separated by place, and sometimes by time. It has become the fastest growing form of domestic and international education (Gunawardena & McIsaac, 2013).

Early research shows that distance education is not a new phenomenon because it was available since the 18<sup>th</sup> century (Harting & Erthal, 2005). Its first form included the correspondence school module, which required a reliable postal service that could deliver and carry the lessons between students and the institution. This evolved into an electronic form that delivered education at a distance (Harting & Erthal, 2005). The idea for distance education was to recognise the need to augment learning opportunities for everyone who would not access education physically. Harting and Erthal (2005) argues that the United Kingdom's Open University was the world's first university to teach only at a distance and it admitted more than 24,000 students in 1971. However, UNISA (2022) claims to be the first university in the world to offer distance learning in 1946. This misunderstanding or clash of arguments may be due to limited literature of distance education in the African context.

China also is an example of this development, with higher education programmes developed between the late 1970s and 1980s in response to population growth (Wang et al., 2009). The Open University of Hong Kong was developed to serve residents in 1989, with over 100,000 students (Zhang et al., 2005). Turkey also developed the Anadolu University in 1981, offering distance education to more than 500,000 students, which makes it the largest university by size of students worldwide (Yasin et al., 2012;

Simonson et al., 2019a). According to Simonson et al. (2019), the sub-Saharan African countries also introduced distance education when the population increased. The African Virtual University (AVU) based in Nairobi, Kenya, is one of the top technology-based distance education networks of 55 learning centres in 27 African countries (Zane & John, 2007). Further, AVU began as a project by the World Bank in 1997 and it developed into the first Pan-African University.

The Deakin University, University of New England and The University of Queensland are also among the early universities that offered Master's degrees via distance education (Bynner, 1986). In addition, the Deakin University was the first to offer doctoral programs by distance in the 1980s (Bynner, 1986). This helped students who were both studying and working because distance education is an education model that has no time constraints and it was developed to meet the growing needs of higher education by responding to flexible learning environments and lifelong learning (Gunawardena & McIsaac, 2013).

In the past three years, the world experienced one of the deadliest viruses called COVID-19, which left the education system in a rush of addressing the changing learning landscape (Dayagbil et al., 2021). Although many universities already offered distance education, COVID-19 forced all institutions to adapt to new educational innovations to meet the changing learning needs. Further, societies had to adapt to new ways of learning with social, cultural, economic and educational implications. Most institutions that were originally using traditional ways of teaching and learning, COVID-19 forced them to adapt to new circumstances. Further, these institutions had to continue with their academic year studies through distance education with asynchronous lecture notes and synchronous live courses (Yilmaz Ince et al., 2020; Tzifopoulos, 2020).

For some universities, distance education had the pressure of meeting different learning styles as a result of challenges of distance learning amid the pandemic (da Costa et al., 2020; Tzifopoulos, 2020). According to Prensky (2012), the new situation of COVID-19 required students to be in front of a mobile phone or a computer screen. This did not seem to trouble modern students, because they were born in the age of modern technology where they socialize and interact using social media. Further, Prensky (2012, p. 240) also states that this "normalization stage" does not apply to everyone, but draws

an invisible line between those who can afford and those who cannot afford especially in an unequal context such as South Africa (Pika and Reddy, 2022)

### **2.3 Teaching and learning in distance education**

Similar to all other new strategies, distance education has its disadvantages and limitations. Scholars have raised a question about the quality and standard of distance education in higher institutions of learning (Carr, 2000; Palvia et al., 2018; Hebebe et al., 2020). Despite the phenomenal growth of distance education, educators remain confronted with conflicting pressures from students. According to Simonson et al. (2019, p. 5), “firstly, students say their first choice is not to learn at a distance. Secondly, students are increasingly demanding to be allowed to learn at a distance”. One possible explanation of the above conflicting pressure may be as follows: firstly, students prefer meeting with their learning groups and the instructor physically, in a formal lecture hall or laboratory since they value the contact and interactions before and during class. Secondly, there appears to be a direct contradiction since the second reason alludes them to demanding to be allowed to learn at a distance, which enables them to learn where and when they want to learn (Simonson et al., 2019a). These conflicting statements poses a question to the higher education system about whether they should invest in the physical infrastructure or improve distance education, online learning and telecommunications systems (Simonson et al., 2019a).

As mentioned previously, the past few years have been challenging for higher education institutions globally, as institutions were compelled to adapt to new ways of teaching and learning. Traditional physical education institutions such as the University of KwaZulu-Natal (UKZN), the University of Free State (UFS) and many others in South Africa and across the globe, had no choice but to introduce emergency remote learning through distance education platforms (Mahlaba, 2020; Cranfield et al., 2021). Over the last year, these institutions had to make use of electronic information and communication technologies to thrive in providing teaching and learning to students.

Research shows that distance education has proven to be the answer to the pandemic crises that force individuals to practice social distancing in the hope of minimising risks of spreading viruses (Sahbaz, 2020). However, some students and lecturers who planned to teach and learn via the traditional approach seemed to have experienced difficulties

(Tzifopoulos, 2020). One of the challenges that studies have noted was the issue of students and lecturers not having enough data to access study material needed for remote learning and distance education (Almaiah et al., 2020; Mahlaba, 2020). In addition, as a contribution to this literature, this study envisages contributing to the understanding of graduates' experiences who have studied via distance education and shed insights to the current debates on the pros and cons of online and remote teaching and learning, with a particular emphasis on the learning of research through this mode.

Developments in information technology have strengthened the global communication networks of distance education applications during the pandemic (Yilmaz Ince et al., 2020, p. 343). Valentine (2002) presents many studies that shed insight on the possibilities and problems of distance education. Despite the advantages of distance learning, there are problems that need to be resolved, including the quality of instruction, misuse of technology, and the attitudes of lecturers, students and administrators involved. Additionally, other disadvantages mentioned by other studies include lack of social interaction between students and instructors and the participation of students, which results in feelings of isolation, absence of social atmosphere, minimised motivation to attend classes and worsened discipline (Moiseevna et al., 2017). This study aims to also contribute to this body of literature by investigating the advantages and disadvantages of distance education from the perspective of postgraduates. This will assist higher education decision makers to improve the quality and standard of higher education because distance education has proven to be the best solution for educator-student interaction during turbulent environments.

## **2.4 Research education via distance learning**

There is a rich body of literature on research in higher education on different topics of interest, but there is scant literature on the challenges of developing research skills for South African students (Mafenya, 2014). Teaching research methods have been included in all levels of higher education programmes, but mainly in postgraduate studies and across a wide range of disciplinary, institutional and national contexts (Kilburn et al., 2014; Ponnuswami & Harris, 2017). There has been a marked increase of Master's and Doctoral students who do research part-time, either formally or informally in a distance

education mode (Cumming et al., 2005). Research shows that the increase in Master's and Doctoral students who do research part-time is consistent with the rise of a knowledge-based economy, which requires students to develop sophisticated new literacies and advanced thinking skills using research (Cumming et al., 2005).

Earley (2014) argues that the success to teaching research methods courses requires the instructors to use a hands-on approach when teaching the content via distance education. Ponnuswami and Harris (2017) who has experience of teaching research methods in India and Australia recommended that for an effective research education, instructors are required to draw on their own contextual deep understanding, as well as the globally accepted research traditions and standards. Schulze (2009) emphasises on the importance of engaging students in the process of problem solving, critical analysis, evaluation and reflection on real-world context to allow them to make sound decisions when conducting research.

## **2.5 The Research Methodology module: structure in distance education**

The Research Methodology module is a fundamental module for an Honour's programme. According to UNISA (2022), the Research Methodology module is intended for all students who are pursuing studies at an Honour's level. Students are exposed to the research process and all its facets in order to equip them to participate in- and contribute to research projects in their future endeavours, either in the work environment or when pursuing further research studies. The UNISA-specific Research Methodology module for Honour's students addresses scientific research, ethical principles and behaviour in research, and the nature, methods and process of conducting quantitative and qualitative research (UNISA, 2020b). Schulze (2009) shared information about the Research Methodology module done at a Master's level in education, which is structured similarly to the Honour's research module.

Students are required to purchase a prescribed textbook that is supported by a workbook, which the institution compiles and sends to students at the beginning of the module. The workbook comprises of activities, which guide students through engagement with the prescribed textbook. The module is divided into three sections, including: 1) introduction to research where they are taught to isolate and formulate a research problem, questions

and hypotheses, and to review previous research and write a literature review; 2) introduction to quantitative research methods, which exposes them to how quantitative research is conducted, statistical information and forms of analysis; and 3) introduction to qualitative research methods, which exposes them to the philosophical underpinnings used in qualitative studies (UNISA, 2022).

The way research modules are structured are meant to enable students to write an acceptable research proposal, develop arguments based on data obtained from the literature, develop arguments on their own empirical data and reach accountable syntheses and conclusions based on their data (Schulze, 2009). The study conducted in UNISA by Schulze (2009) found that students expressed a need for more exposure to useful information on how to do research on the internet, more clarity on research terms, more guidance on explaining research issues and more guidelines on how to construct questionnaires and interview guides. The paucity of literature on the experiences of students in learning research in a distance education postgraduate programme was limited and this did not allow further comparison with other studies.

## **2.6 Honours level research programmes**

Research skills are core for postgraduate studies and for most lines of employment that are research-related. Honour's graduates are expected to acquire research skills at an Honour's level (Nwangwa et al., 2014). Research shows that the Honour's level comprises a period where students learn research processes (Aguado, 2009). The purpose of the introductory Research Methodology modules at an Honour's level is to familiarise students with research and to provide them with skills to conduct research. According to Lei (2010, p. 236), students are supposed to acquire the "how-to skills and application of research skills" at the Honour's level. Further, Lei (2010) also emphasises that it may not be important to cover all chapters in great detail in an introductory Research Methodology module, but what is important is that students must fully master research processes on nominal and ordinal measurement scales before mastering interval and ratio skills.

Honour's research programmes have an opportunity to create a foundation for research and motivate students to pursue a career in research by motivating them to engage in

their own research projects (Mitsis, 2015). Supervision at this stage is also very important. Supervision methods used at this point play a vital role in shaping students to becoming excellent researchers and experts in their fields (Mitsis, 2015). Mulyatiningsih and Sugiyono (2020) conducted a study to examine the effectiveness of Motivation, Inspiration, Realization and Solution (MIRS) approach for students' capabilities to write research papers. They concluded that when Research Methodology lecturers motivate and inspire students, they allow students to formulate their research problems and guide them in overcoming challenges when writing up their research papers. Further, the lecturers' encouragement is considered an assisting tool for students to find their focus and motivation to write their research papers (Mulyatiningsih & Sugiyono, 2020).

In the African continent, in countries such as South Africa, Lesotho and Botswana, an Honour's degree is a gateway to a Master's degree should the student decide to further their postgraduate studies. Whereas in Australia, an Honour's degree is a gateway to the Doctorate degree and it was designed to transform students from acquiring knowledge to creating the knowledge (Mitsis, 2015). According to Mitsis (2015), when students are studying towards an Honour's degree as a gateway to the PhD, they face numerous challenges during completion of their doctoral studies. One of the challenges is undertaking large research projects due to lack of previous experience (Engström, 2015; Mitsis, 2015).

When it comes to teaching research at an Honour's level, Earley (2014) warns research instructors to be aware that Honour's students do not necessarily come into the research course with positive emotions, attitudes, conceptions or reviews regarding research methods. However, constructive feedback from research supervisors tends to be valued by students because it encourages them into discourse practices of the academic community (Basturkmen et al., 2014; de Kleijn et al., 2014).

Research skills are an important aspect for any career, whether in academia, industry, education or policy-making (Sarah et al., 2017). Honour's degree programmes teach students the necessary research skills. The goal of an Honour's degree programme is to shift the students' minimal and restricted research understanding to an independent and lifelong research competence before they graduate (Sarah et al., 2017). To support the Honour's degree programme, the Research-based Integrated Education (RIE) approach has been used by other educators. This approach aims to develop students by allowing

them to do literature-based research for construction of arguments and experimental design, through to developing research questions, developing original models, data acquisition and analysis and finally to proceed with the selection of a research focus (Sarah et al., 2017).

## **2.7 Attributes of honours graduates**

As discussed in the previous section, the Honour's research programme aims to prepare students for research-based postgraduate studies in their respective disciplines. The qualification (Honour's degree) further aims to develop research capacity with special attention to methodology and techniques in research (UNISA, 2020a). The qualifying students are expected to demonstrate a high level of theoretical knowledge in major combinations and the ability to conduct research in a particular discipline (UNISA, 2020b).

The South African Qualifications Authority (SAQA) provides the guidance and support tools when developing the curriculum for all qualifications. The National Qualifications Framework (NQF) Level 7 suggests the learning outcomes that are appropriate to obtain an Honour's degree. These include that "graduates should be able to demonstrate knowledge of engagement in an area at the forefront of a field or discipline; and understand the theories, research methodologies, methods and techniques relevant to their discipline" (SAQA, 2012, p. 10). For the Programme Quality Mix (PQM) degrees at the Honour's level, the Department of Higher Education and Training (DHET) legislated at least 30 of the 120 credits of the degree to research.

From an international perspective, the University of Melbourne does not provide an Honour's degree program, and their undergraduate programmes are structured as a developmental pathway to a Master's programme and a stand-alone employment preparation (Onsman, 2015). Their degrees tend to have more work because it has more majors compared to a normal degree that is a gateway to an Honour's degree. Arguably, this could affect how Master's students acquire research skills, due to the limited time to learn research skills, considering all the coursework majors that are included in the programme.

The Australian Honour's degrees prepare students for further research and a basis for awarding doctoral scholarships (Shaw et al., 2013). An Honour's degree in Australia aims to build research capacity, with emphasis on development of postgraduate researchers but also extending to undergraduate research experience (Shaw et al., 2013). They consist of two types of honours, which includes the end-on model where an Honour's degree is a separate year of study after a Bachelor's degree. This model includes a research dissertation, research training and advanced courses in disciplinary knowledge. The second model is the embedded model, which has Honour's requirements that are integrated into a four-year Bachelor's degree (Shaw et al., 2013).

It is clear that Australia does not function like South Africa, where an Honour's degree is a gateway to a Master's degree not a PhD. According to Shaw et al. (2013), students are faced with a lot of challenges when moving from undergraduate to postgraduate research studies. What is important is that higher education, globally, is constantly searching for ways to improve or introduce new pedagogical strategies for the development of research skills for students.

## **2.8 Research competencies for Masters and PhD programmes**

Literature suggests that a majority of Master's and PhD candidates enter into the respective programme with limited prior knowledge and skills in conducting research (Meerah et al., 2012, p. 627). Supervisors often assume that Master's and PhD candidates possess the ability to conduct research when they enrol into the research programmes. This is expected after successfully completing the first and second degree courses which included research modules that they would need for Master's and PhD (Meerah et al., 2012). Generally, it is important for Master's and PhD candidates to have necessary capabilities to conduct research because prior to being awarded by the institution of the qualification, they are required to submit a thesis for evaluation. A thesis acts as an accumulation of students' original research work to show that he/she has accomplished and completed a research study that prepared them to being regarded as a professional researcher or scholar (Meerah et al., 2012).

The task of teaching research methods is not to confuse students in the use of research techniques but rather to assist them to build up necessary knowledge, skills and

capabilities and also develop required intellectual virtues of research (Kilburn et al., 2014). Shaw et al. (2013) shows that Australia gives undergraduates an opportunity to undertake research projects as part of an additional year, with means of fast-tracking graduates into research careers. In undergraduate research methods modules, students fail to see the relevance of the research module to their research career lives (Kay H. Braguglia & Kanata A. Jackson, 2012). As a result, they become uninterested and unmotivated to learn the research material (Papanastasiou & Zembylas, 2008).

Findings by Murtonen and Balloo (2019) implied that students who considered research skills as important for their future work were more task-oriented and they experienced less difficulties in learning research skills compared to the other students. Students are therefore encouraged to understand that research skills are no longer important only for those aiming at research work but rather for all university graduates (Salmento et al., 2021). Master's and PhD students are also required to undertake a research project and this stage does not provide tutorials on acquiring research skills. Students are expected to apply prior knowledge acquired from the Honour's or undergraduate research module and possess the ability to work independently from supervisors. However, some studies indicate that Master's and PhD students experienced challenges and difficulties in conducting their own research (Kowitlawakul et al., 2017). Supervisors have also commented that most of their students need a lot of guidance throughout their research projects (Brunner Huber et al., 2015).

From the early 2000s, universities have been spending vast resources on research, but the outcomes were not as good as expected (Salmento et al., 2021). Supervisors find themselves charged with teaching research skills through Master's and PhD students' research journeys (Engström, 2015). This implies that students do not meet the standard level that is expected from them as Master's or PhD students, and this should be further explored to prevent threat to research ethics and standards.

The central aim for any doctoral programme is to immerse and inculcate the student into the respective community of academic scholars and professional practitioners (Blessinger & Bliss, 2016). A study shows that a research paper written for Master's and PhD is found to be an uninteresting and unexciting activity by some students (Mulyatiningsih & Sugiyono, 2020). This means that they may not have realised its

value, especially in their respective disciplines or target workplaces (Mulyatiningsih & Sugiyono, 2020).

The study conducted by Mulyatiningsih and Sugiyono (2020) proved that using the MIRS approach to teach research skills increased students' ability to conduct their own research projects. In addition, the study's results also showed that the number of students who were able to write innovative research papers was higher when compared to those that replicated the existing research papers. From the above findings, it can be concluded that the MIRS approach was proven to be effective for improving the capability of academic writing skills.

## **2.9 Research competencies for the world of academia and research work**

Traditional formal education with restricted amount of research practice may not be able to prepare students with realistic conceptions of the nature of their future research work and the skills required in it (Murtonen et al., 2008). There is an increasing importance of knowledge as a principal driver of growth, but higher education has been faced with unprecedented challenges in producing knowledge in societies since graduates are not reflecting the expected skills and competencies after graduation (Salmi, 2003).

Governments, the private sector and the World Bank need to help the higher education sector in eliminating these challenges (Salmi, 2003).

Cooksey and McDonald (2019, p. 27) asserts that the skills required by a postgraduate, whether in the world of work or to further their studies requires "personal skills, professional skills and technical skills". Personal skills include project management, personal motivation, enthusiasm, pro-activity, openness to new ideas, creative thinking, networking, teamwork, and ability to work. Professional skills include being capable to manage a research project and the well planning of the project. Technical skills include gathering of data, use of software, analysis and interpretive skills. Cookey and McDonald (2019) asserts that these are the skills that graduates should have mastered prior to entering the world of work.

Research skills obtained in the university or college have a significant impact on costs and productivity in the workplace (Travis, 2017). Research skills are not only important for graduates who pursue a career in the academia. For instance, in Social Work

education, students are required to apply effective research findings to underpin decision making in social work practice to be considered research experts in social work (Fish, 2015). In addition, research skills and competencies are also important for graduates who wish to pursue employment in industry at large. Mafenya (2014) also had an opinion that most individuals in the world of work are motivated to conduct research to get promoted to senior levels at their workplace.

## **2.10 Conclusion**

This chapter provided a review of national and international empirical literature on distance education and the acquisition of research skills. The literature presented highlights the history of distance education and the developments in information technology to strengthen the global communication networks of distance education. The chapter further discusses the content knowledge and skills of research methodology modules at an Honours level and what other scholars had discovered about the competencies of graduates after they had taken such research methodology modules.

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## **CHAPTER 3: THEORETICAL FRAMEWORK**

### **3.1 Introduction**

This chapter discusses the components of the theoretical framework that was adopted and provides a rationale for how the theories assisted in viewing the research problem as well as producing and analyzing the data. As stated in Chapter one, this study aimed to explore and understand the learning experiences of Honour's graduates whilst they were registered for the Research Methodology module (HBEDTRD) via distance education offered by UNISA.

There are several theoretical frameworks, depending on the goals and purposes of the research that is being conducted, that guide qualitative research in order to analyze data in education (Ornek, 2008). Since this study was located in the discipline of Higher Education Studies, theories related to the constructs of learning new information and knowledge in the higher education context were selected to understand how learning research via the distance education mode played a fundamental role in the cognitive development of the participants as they engaged in further research endeavors after graduating with the Honours qualification from UNISA. The chapter begins with an explanation of the significance and role of the theoretical framework in a research study. The discussion then turns to the tenets of constructivism (Piaget, 1977) and socio-cultural theory of human learning (Vygotsky, 1978), which were the two models that guided this study.

### **3.2 Towards a Theoretical Framework**

In research, a theoretical framework adds value as a facility that makes sense of research data (Grant & Osanloo, 2014b). Lederman and Lederman (2015) assert that adopting a theoretical framework in a research study facilitates the effectiveness of data collection. Lysaght (2011) also highlighted the necessity of identifying one's theoretical framework for the dissertation as follows:

“A researcher’s choice of framework is not arbitrary but reflects important personal beliefs and understandings about the nature of knowledge, how it exists in relation to the observer, and the possible roles to be adopted, and tools to be employed consequently, by the research in his/her work” (p. 572). The theoretical framework provides the structure to define how you will philosophically, epistemologically, methodologically and analytically approach the dissertation as a whole (Grant & Osanloo, 2014a, p. 13).

In this study, adopting a theoretical framework acted as an explanatory device that assisted me as the researcher to make sense of the research problem, data production and how the data was subsequently analysed. There are many different theories that exist to study human behaviour since there have been many advancements in how humans are taught, the way that humans think and the various ways of explaining the occurrence and implications of the social phenomena existing in the real world (Adom et al., 2016, p. 1). Depending on the study goals and purposes, not all the theories that exist can be followed. Therefore, only one or more theoretical frameworks should be followed (Ornek, 2008).

Research shows that initially scholars believed that there were two traditional philosophical theories or research paradigms (Willis, 2007; Adom et al., 2016). The two traditional philosophical theories, namely, positivism and interpretivism, have given birth to numerous other philosophical theories and all of them have roots in one of the traditional ways of philosophizing (Adom et al., 2016). Constructivism is one of the theories that is located within the interpretivism paradigm since it is interested in the social construction of knowledge (Adom et al., 2016). It is for this reason that Piaget’s Theory of Constructivism (Piaget, 1977) was adopted to provide guidance to this study. The study also drew from Vygotsky’s Socio-Cultural Theory of human learning that criticised some elements of constructivism, suggesting that a certain ‘culture’ is responsible for developing the brain’s higher-order functions (Kendra, 2022). Additionally, this study used relevant strands of the Constructivism theory in conjunction with some strands of the Socio-cultural theory of human learning to help formulate the lens through which the research skills were acquired and applied by Honours graduates who were the participants of this study in their research endeavours either as postgraduate students or researchers.

### ***3.2.1 Theory of Constructivism***

Hein (1991, p. 2) states that the meaning of the term “constructivism” is the term that refers to the idea that learners construct knowledge for themselves... each learner individually constructs meaning as he or she learns. He further discusses the dramatic consequences of this view as twofold: 1) the study has to focus on the learner in thinking about learning (not on the subject/ lesson to be taught); 2) There is no knowledge independent of the meaning attributed to experience by the learner, or community of learners (p. 2). According to the first view of constructivism by Hein (1991), this study focused on how graduates experienced learning research via the Research Methodology module and to determine the extent to which those experiences of learning research were applied to their current engagements. Therefore, the study was not investigating the only the content of the Research Methodology module. Accepting the constructivist position for this study required me to follow a pedagogy, which argues that we must provide participants with the opportunity to: a) interact with sensory data; and b) construct their own world (Hein, 1991).

Originally, this theoretical perspective was termed “naturalistic inquiry” and more recently, it has come to be known as the “constructivist paradigm” (Appleton & King, 1997, p. 14). One of the principles of learning as stated by Hein (1991) was that “one needs knowledge to learn and it is not possible to assimilate new knowledge without having some structure developed from previous knowledge to build on... Any effort to teach must be connected to the state of the learner, must provide the path into the subject for the learner based on the learners’ previous knowledge.” (p. 4). The rationale of this study, mentioned in chapter one, section 1.3, indicated that this study aimed at providing some insight from the graduates’ perspectives based on their experiences of learning research skills through distance education. It hopes to contribute to the curriculum design and delivery of such modules, as well as to raise awareness to students, of the importance of such research foundations to assist them in becoming competent researchers when they engage with wider scholarly research activities and engagements post-graduation. Hence, constructivism was selected to guide this study.

According to Brau (2020), constructivism is a learning theory which affirms that knowledge is gained through a process of action, reflection and construction. In

education, constructivism is a new approach that claims that learning is a social advancement that involves real world situations, interactions and collaboration among students (Bawa & Zubairu, 2015). The systems or options (such as distance education and/or information technology in this study) selected for teaching by the institutions may be considered to affect the learning process. In this case, acquiring and applying research skills for Honours graduates is considered a social advancement that involves real world situations, interactions and collaborations. The study aimed to answer whether learning research skills via distance education qualifies students to be competent researchers.

In previous research, the theory of constructivism was used as an approach which asserts that people construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences (Honebein, 1996). It is formed on the basis that people construct much of what they learn through experience. It views social reality as subjective and co-constructed through human experience (Chandra & Shang, 2017, p. 92). This approach was used to investigate whether acquiring research skills via distance education may have affected the graduates' experience of learning research knowledge and skills through the Research Methodology module under study. It was also useful in analyzing data collected from graduates by trying to understand their understanding and knowledge from their experiences.

### ***3.2.2 Socio-cultural Theory Human Learning***

The second theory, working in conjunction with the Theory of Constructivism was the Socio-cultural theory of human learning that was appropriated for this study. Lev Vygotsky's works are widely renowned for pinpointing the importance of social interactions and culture in the development of higher-order thinking skills. The Socio-cultural theory of human learning is valuable for the insights that it provides about the dynamic interdependence between the individual and social processes in the construction of knowledge (John-Steiner & Mahn, 1996; Polly et al., 2017). Vygotsky (1978) argued that social contexts and interconnections are vital for the attainment of advanced order intellectual skills, and that cognitive development is not fully understood without considering the socio-historical contexts within which it is embedded.

While much of the framework for socio-cultural theory was put forth by Lev S. Vygotsky (1931/1997), a Russian psychologist who began his work following the Russian Revolution of 1917 (Scott & Palincsar, 2013), the extensions, elaborations and refinements of socio-cultural theory can be found in writings regarding activity theory (Chaiklin & Lave, 1996). Cobb and Yackel (1996) noted significant developments in American education research over the past decade with an increasingly prominent role played by both constructivist and socio-cultural approaches. Initially, these two perspectives tended to argue for the hegemony of their own views. However, there appeared to be a growing consensus that the perspectives are at least partially complementary (p. 175). Both constructivism and socio-cultural theory (which are applied to guide this study), when applied to learning, are concerned with the activities that the participants engage in to learn (Scott & Palincsar, 2013). However, constructivist theory suggests one should attend to the learning and mental representations of the individual while socio-cultural theory is more concerned with the ways in which learning is an act of enculturation (Scott & Palincsar, 2013, p. 4). Accommodating both the constructivism and socio-cultural theories in this study, assisted me to look at the graduates' individual experiences of learning research skills and knowledge from the Research Methodology module (research skills as an active construction) as well as the teaching traditions applied in teaching research skills in distance education (research skills as enculturation) (Scott & Palincsar, 2013). The dual presence of both socio-cultural and constructivism theory can act as competing aims for teaching and learning (Scott & Palincsar, 2013, p. 4). According to Cobb and Yackel (1996), the lens of socio-cultural theory is considerably wide when compared to constructivism theory. A socio-cultural theorist, when interpreting a learning situation, might attend to the broader system in which the learning is happening and will draw interpretations about an individual's thinking and development based on his or her participations in organised activities. This was applied to understand the extent to which the participants were able to apply their knowledge and skills learned during the Research Methodology module to the research that they were currently undertaking as postgraduate students or researchers in the world of work. Meanwhile, an account of the lens of constructivism theory is concerned with the individual and ways in which sense making happens through the individual's accommodation of experience (Cobb & Yackel, 1996).

The importance for drawing on the Socio-cultural theory of human learning in this study was to lay emphasis on building “learner-centred instructional environments where learning by discovery, inquiry, active problem solving, and critical thinking are fostered through collaboration with experts and peers in communities of learners and encourage self-directed lifelong learning habits” (Polly et al., 2017, p. 129). Providing genuine and cognitively demanding exercises in an atmosphere of synergy and cooperation, allows to support students’ endeavours by creating an environment to execute intricate tasks, and affording chances for realistic evaluation. For the purpose of understanding the genuine and cognitively demanding exercises provided by the institution to support graduates, the study took an interest in determining the assessments provided for the module. This was to determine the extent to which assessments provided by the institution were in line with identifying the abilities that are in the process of developing the graduates’ ability to independently apply the knowledge and skills gained from the Research Methodology module, and predict what the graduates would be able to do independently in their future research engagements. Socio-cultural theory suggests that the goals of educational assessment should be to: (a) identify abilities that are in the process of developing, and (b) attempt to predict what the learner will do independently in the future (Cobb & Yackel, 1996). Thus, from the perspective of cognitively demanding exercises (activity theory), Lantolf (2000) stated that while these activities could yield positive learning outcomes, there can be no guarantees, because what ultimately matters is how individual learners decide to engage with the demanding exercises as an activity.

Socio-cultural ideologies are applicable in a real and tactful way to plot and plan tuition through the curriculum for students of diverse peer-group and abilities, and these can be successfully incorporated by utilising an extensive variety of technologies and human learning environments (Polly et al., 2017). The theory suggests that instructors, curriculum creators and implementers are required to raise their enactment from universal methodologies for instruction, learning and curriculum planning to a concentration on each learner and effective instructional practices that will cultivate learners to navigate smoothly from university to the world of work. In the interview questions formulation process, the intention was to discover various issues that may have emerged at the time of learning research knowledge and skills through the Research Methodology module. This was for the purpose of assisting instructors and curriculum

creators and implementers to better plan tuition for future Research Methodology module students through an understanding from graduates' experiences.

### **3.3 Conclusion**

Overall, in this study, the theory of constructivism and the socio-cultural theory of human learning were used to understand how Honour's graduates experienced learning via distance education and to explore how the research skills and knowledge they gained from their learning process transferred to real-world engagement and research experience. This chapter looked at describing what a theoretical framework is and how it assisted a researcher to answer the research questions. It further explained the two theories, constructivism and socio-cultural, used to guide the study.

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## **CHAPTER 4: RESEARCH METHODOLOGY AND DESIGN**

### **4.1 Introduction**

This chapter provides a description of the research methodology used to guide the design of this study. According to Willis et al. (2007), research methodology is a concept used to describe different aspects of a research study, which includes the design, procedures for data collection, selection of participants and techniques for data analysis. The chosen research methodology is often determined by the research objectives, the research instruments developed and the quest for the solution of the problem that is being investigated (Khaldi, 2017). In this study, the research methodology was determined by the philosophical underpinnings that are qualitative in nature since the aim was to explore Honours graduates' experiences of learning research knowledge and skills through the Research Methodology module via the distance education mode.

While understanding the graduates' experiences, I was also interested in determining the extent to which graduates were able to use the skills and knowledge gained from the Research Methodology module to engage with wider scholarly research activities and engagements after graduation. As such, this chapter explains the procedures adopted to explore the participants' experiences. The first section provides an overview of this study's context and location. The second section describes the research philosophy that shaped the design and approaches of this study. The third section outlines the data production and generation processes, which includes sampling techniques, selection of participants and research instruments adopted. The fourth section describes the matters of ethics, privacy and quality assurance considered in this study. The final section is a brief overview of the data analysis strategy and limitations of this study.

### **4.2 Study context**

This study was conducted in South Africa at the University of South Africa (UNISA). Permission was sought to use the name of the institution (Appendix 4). Founded in 1873 as the University of the Cape of Good Hope, the institution was renamed 'UNISA' in

1916 and has now become one of the largest open distance learning universities in Africa, becoming the longest standing distance education university worldwide (UNISA, 2022). The institution became the first public university in the world to offer distance learning in 1946 and currently it enrolls nearly one-third of South African students and those from other countries (UNISA, 2022). UNISA offers a range of study choices, including three-and four-year degrees and diplomas, certificate programmes and short courses. It has received recognition for being one of the leading research institutions in Africa and its research efforts has won numerous awards and honours internationally (UNISA, 2022). UNISA's ability to offer Research Methodology modules as part of its postgraduate offerings, and for being one of the leading research institutions in the world, provides an opportunity to understand how graduates experience distance education to study research, explore the possibilities and challenges of distance learning among postgraduates and discover ways to assist future students who are about to register for similar research modules in the future. Hence the significance of this study.

### **4.3 Research philosophy**

A research philosophy is very crucial in shaping the design and approaches adopted in a study because it provides credibility and reliability of the research outcomes (Jackson, 2013). This study relied primarily on the qualitative research approach, and was located within the interpretive paradigm. Phenomenography, originating in educational research by Marton and Säljö (1976), was used to understand the participants' qualitatively different experiences of learning research through the module. Further, the philosophical underpinnings are explained below to make the reader understand the decision points that I took in order to assure quality and credibility of this research study.

#### ***4.3.1 The Qualitative research approach***

The qualitative approach adopted for this study involved producing data that responded to the research questions that were presented in the first chapter (1.6 Critical Research Questions and Research Objectives, pg 17-18). In order to successfully answer the research questions set out in the study, I believe that it was prudent to adopt a qualitative research approach that generated non-numerical data and could reflect the learning

experiences of the participants. According to Azungah (2018), qualitative research provides a detailed description of events in the social world through exploratory and in-depth insights to the problems that have not been easily observed in quantitative research. Denzin and Lincoln (2018, p. 10) asserts that qualitative research is a difficult term to define by asserting that; “qualitative research is many things to many people”. Qualitatively derived theory is a refined view of the real-world experiences (Morse et al., 1998). According to Cheu-Jey Lee (2012, p. 404), “qualitative research, as a set of interpretive activities, privileges no single methodological practice over another.

Lee (2012) also describes qualitative research as the reformist movement that started in the early 1970s in the academy. This movement was surrounded by multiple epistemological, political, methodological and ethical criticisms of social scientific research fields. The philosophical assumptions (ontology, epistemology and axiology) that underlay this qualitative study was what shaped the formulation of the research questions and to seek subsequent information that could answer them (Lincoln & Guba, 1988). The ontological view of this study embraced different realities of Honour’s graduates and provided an understanding of their different lived realities as they viewed it from their perspectives (Neubauer et al., 2019). The epistemological assumption required me as the researcher to be subjective towards the participants who were being studied to understand their behaviours and reasons that govern their behaviours. This is what led me to conduct open-ended interviews with the participants compared to a closed-ended interview since I was interested in the co-production of data.

The axiological assumption that characterised this research was that I had the first-hand experience of the phenomenon under study since I am an Honours graduate of UNISA and I had registered for the same Research Methodology module under study. However, the bracketing process was adopted to set aside my experiences and prior assumptions of the social phenomenon being studied that is the participants’ experiences of learning research through the Research Methodology module via distance mode. Bracketing is a methodological device of phenomenological studies that requires the researcher to put aside his/her own belief about the phenomenon under investigation or what he/she already knows about the subject throughout the phenomenological investigation process (Chan et al., 2013). The application of the bracketing process enabled me to appreciate and embrace the different opinions and experiences shared by the participants. Overall, adopting the qualitative research approach allowed me to gain a deeper understanding

and a subjective analysis of the participants' experiences without passing judgment based on my own experience and knowledge of the module under study.

#### ***4.3.2 The Interpretive paradigm and phenomenography approach***

Adopting a research paradigm and underpinning epistemological assumptions offers the researcher a chance to understand the purpose and importance of conducting a qualitative study in a rigorous way. This study was informed by a phenomenography approach, which is located within the interpretivist paradigm (Feldon & Tofel-Grehl, 2018).

According to Alharahsheh and Pius (2020), an interpretivist paradigm was developed as a criticism to positivism using a subjective analysis that aims to understand humans from a social phenomenon because they create in-depth understanding and meanings from their experiences. In addition, this allowed me to understand the behaviours, perceptions and experiences of the participants concerning how they viewed distance learning as well as their experiences of learning research from the Research Methodology module.

Phenomenography remains a philosophical approach which is a descriptive study of how individuals experience a phenomenon that is being studied (Goulding, 2002; Norlyk & Harder, 2010; Smith et al., 2022; Van Manen, 2016). Phenomenography aims to deeply understand the nature or meanings of people's experiences (Van Manen, 2016). Van Manen (2016, p. 38) further explains phenomenography research as the study of essences, by making an example that phenomenography does not ask, "How do children learn?" but it asks, "What is the nature of the experience of leaning?", so as to better understand the particular learning experience. For the purpose of this study, the "what" focused on the content of graduates' experiences of learning research skills via distance education. The "how" focused on how graduates experienced the learning of research skills via distance education. This framework can be best presented as in the table below:

<b>LEARNING</b>		
<b>WHAT</b>		<b>HOW</b>
<b>ACT OF LEARNING (STRUCTURAL)</b>	<b>INTENTIONAL (REFERENTIAL)</b>	<b>DIRECT OBJECT OF LEARNING</b>

**Table 4.1: The “What” and “How” framework (Marton & Booth, 1997, p. 85)**

Phenomenography investigates human experiences as they live it rather than as how researchers conceptualize it, describing the phenomenon through the art of writing (Van Manen, 2016). Thus, phenomenography was used to understand, interpret and describe the different experiences of the participants in a qualitative format. This study, therefore, explained the way the participants experienced the phenomenon of learning research skills from the Research Methodology module through distance education, with the purpose of better understanding their experiences of the phenomenon. The study being a phenomenography study, it could not be conducted in a disembodied fashion or in isolation. Although the generated qualitative data was analysed by myself, it was important to have self-discipline, by applying the bracketing process, considering that I had also experienced the phenomenon that was studied. This served the main purpose of phenomenographic research, of which is to discern different ways of understanding a given phenomenon that represents the combination of different ways in which an aspect of the world is experienced by a group of individuals (Hajar, 2021). In this study, it was to investigate how Honours graduates experienced acquiring research skills and knowledge from learning through the Research Methodology module via distance education to applying those skills and knowledge to their wider scholarly research activities and engagements after graduation.

#### **4.4 Data generation processes**

This section explains the data generation processes that were followed to make this study a reality. For researchers to answer the proposed research questions, they usually collect or generate data that will assist them to better understand and explore the experiences around the social phenomenon under study. In addition, the data generation processes

include sampling techniques, selection of participants and the recruiting process as well as the research instruments.

#### ***4.4.1 Sampling***

This study used purposive and convenience sampling. These are non-probability sampling techniques that are most relevant in qualitative studies that tend to seek and understand the experiences of participants and ask questions such as “why” and “how” (Saunders & Townsend, 2018). Individuals in a population are not given an equal chance of being selected for the study because the researcher selects the participants based on the inclusion criteria, which tend to be judgmental and selective on the basis that the chosen participant has lived and experienced the phenomena being studied (Boeri & Lamonica, 2015). In this study, I was interested in Honour’s graduates who had an opportunity to study the Research Methodology module offered by UNISA to understand how they experienced learning research in a distance-education setting.

Purposive sampling was the first sampling technique that I used to select participants who had in-depth information and knowledge about the phenomenon that was being investigated. Cohen et al. (2018)) suggests that purposive sampling recruits the participants based on their qualities and lived experiences, which are very important to the study. I contacted the Research Departments at UNISA to identify Honours’ graduates who had studied the Research Methodology module. Although these graduates could be easily identified, I could not obtain a list of graduates as a result of the Protection of Personal Information Act (POPI Act or POPIA). Instead, I was requested to create and send a proposal or invitation letter which was approved by the Ethics Committee to the administrative office. I sent this letter (Appendix 6), which included my contact details for potential graduates, should they be interested in participating in the study. As part of purposive sampling, the letter clearly stated that interested graduates should have obtained an Honours’ degree, completed the Research Methodology module through distance education and, most importantly, had conducted or was busy with their research after graduation. These inclusion criteria enabled me to discern which of the graduates would be most relevant to serve as a participant in this study.

I subsequently received positive responses of interest from several graduates. Convenience sampling was then adopted to select participants who were interested in participating. According to Robinson (2014), convenience sampling proceeds by the way of locating any convenient participants who meet the required criteria and then selecting those who respond on a first-come-first-serve basis until the sample size quotient is full. In this study, I conveniently selected the qualified participants from the responses received from graduates and this was done on a first-come-first-serve basis and checking who were available for interviews during the time of data generation. In addition, these participants were provided with informed consent forms that explained the interview process and those who agreed to the terms of the study and voluntarily signed the consent forms.

Since the study adopted the use of purposive sampling, the findings cannot be generalised about the population at large or make comparisons. In addition, this study placed emphasis on the uniqueness, idiographic and exclusive distinctiveness of the Honour's graduates in question. Therefore, they only represent themselves and their own experiences, not the next person. Presentation of results had to be presented as unique cases that have their own intrinsic value because some members of the wide population were excluded and others included (Cohen et al., 2018; Creswell & Poth, 2016; Graue, 2015; Mayer, 2015).

#### ***4.4.2 Sampled participants and inclusion criteria***

Sample sizes vary from one to many (Marshall & Rossman, 2014, p. 108). For this study, data production was from ten participants who were selected using purposive and convenience sampling. Kuzel (1992) suggests a sample size of six to eight interviews for a homogenous sample. In this study, the point of saturation was achieved with a sample size of ten participants who volunteered to participate after receiving a proposal letter from the administrative office at UNISA. Additionally, the reason for selecting ten participants was that the interpretation of the study findings required me to familiarize myself with the data by repeatedly returning to the original data sources to develop my grasp of its meaning, which matures into the interpretation of multiple realities that existed among the participants (Appleton & King, 1997, p. 20). Doing this with more than ten interview transcripts would be time-consuming.

The process of suitable participants was based on the inclusion criteria to assist getting rich and quality data from all participants. The participants had to be above the age of 18 years, registered for and passed the Research Methodology module at an Honours level, studied through the distance education mode at UNISA, and had undertaken research as part of their work or study purposes and had to refer back to the Research Methodology module and apply different practical skills involved in conducting their current research. Table 4.2 below profiles the participants of this study, which consists of information of the ten selected Honour's graduates who completed the Research Methodology module through distance education at UNISA. For protection of their identity, pseudonyms as participant identifiers were used throughout the research process.

**Table 4.2: Profiling of participants demographic characteristics**

<b>Pseudonym</b>	<b>Gender</b>	<b>Race</b>	<b>Undergrad institution*</b>	<b>Postgrad institution</b>	<b>Full time (ft)/ part time (pt)</b>	<b>Department</b>	<b>Reason for research (academic study/ research employment)</b>	<b>Current city of residence</b>
<b>1. PChantalM</b>	Female	Indian	UKZN	UNISA	F/T	Science	Academic study	Durban, KwaZulu-Natal
<b>2. PMenziN</b>	Male	Black African	MUT	UNISA	F/T	Science	Research Employment	Durban, KwaZulu-Natal
<b>3. PKhayaM</b>	Male	Black African	WSU	UNISA	F/T	Science	Research Employment	Umtata, Eastern Cape
<b>4. PCeboBM</b>	Male	Black African	NMU	UNISA	F/T	Science	Both	Gqeberha, Eastern Cape
<b>5. PMuziM</b>	Male	Black African	WSU	UNISA	F/T	Science	Research Employment	Midrand, Gauteng
<b>6. PNosiceloC</b>	Female	Black African	UP	UNISA	P/T	Education	Academic study	Bizana, Eastern Cape
<b>7. PPitsoM</b>	Male	Black African	UNISA	UNISA	P/T	Education	Academic study	Durban, KwaZulu-Natal
<b>8. PSeanS</b>	Male	White	UCT	UNISA	F/T	Finance	Academic study	Stellenbosch, Western Cape
<b>9. PThobileD</b>	Female	Black African	UKZN	UNISA	F/T	Education	Academic study	Newcastle, KwaZulu- Natal
<b>10. PZamaniG</b>	Male	Black African	UNISA	UNISA	P/T	Education	Academic study	Durban, KwaZulu-Natal

\*UKZN – University of KwaZulu-Natal, MUT – Mangosuthu University of Technology, WSU – Walter Sisulu University, NMU – Nelson Mandela University, UP – University of Pretoria, UCT – University of Cape Town.

#### *4.4.3 Interviewing process*

Interviewing is key to many forms of qualitative educational research. Data generation for this study was through the use of phenomenographic interviews to help us expand our understanding of graduates' experiences with regards to learning research skills via distance education. Phenomenographic interviews are "more dialogic in nature" (Felix, 2009, p. 147), suggesting that there should be a shared topic between the researcher and the participants. The typical phenomenographic interview is of a semi-structured nature with only a very few predetermined questions, since most questions develop from the participant's responses (Hajar, 2021, p. 1425)

According to Cohen et al. (2018), interviews offer an opportunity to obtain information from the interviewees and seek clarity on social phenomenon when required to. To be able to receive in-depth information, open-ended questions were asked during the interviews. Due to the COVID-19 pandemic, face-to-face interviews were not possible as a result of social distancing and lockdown restrictions. For that reason, interviews were conducted virtually and telephonically. All selected participants were required to have access to the internet or either a smart mobile phone or sufficient computer skills. A few participants did not have Skype or Zoom and their interviews had to be conducted telephonically.

The interview guide (Appendix 1) is a list of all the questions that were asked during the interviews. Marton (1981) suggests that interview questions in phenomenography study should be as open-ended as possible to allow the participants to choose dimensions of the question they had to respond to (Hajar, 2021, p. 1425). Open-ended questions assisted me to further examine the learning experiences of participants, allowing one-on-one critical conversations. Closed-ended questions were included to identify if the participant met the inclusion criteria and to record their demographic characteristics. A typical approach was to adopt an in-depth semi-structured interview instrument (Alsop & Tompsett, 2006).

As such, this study made use of open-ended questions, which included footnotes as a form of probing on each question to assist participants in understanding the questions better. As much as the questions were open-ended, some participants were directed by following up of comments to explore different aspects of their experience because open-ended questions may have been too broad for some of the participants and the interview

could have ended up being too long without getting any rich or related information. However, Collier-Reed (2006) argues that although the process of continuous probing and the directed following up of comments in phenomenographic interviews is essential for exploring different aspects from the participant's experience of a specific phenomenon, the process might make the interview reflect as intimidating rather than a traditional qualitative interview (p. 45). Therefore, the participants were to be treated as reporting subjects rather than interrogated objects. This brings about the two major characteristics that differentiates a phenomenographic interview from an ordinary interview as identified by Bruce (1996, pp. 5-6) focuses on:

- The relationship between the participants and the theme of the interview, and
- How the theme appears to, or is experienced by the participants rather than the focus being on the individuals or the theme itself.

#### **4.5 Ethical considerations**

Although interviews were conducted virtually, this study involved human participants and maintaining ethical standards was key. Ethics in research involves the protection of human dignity and security of personal information of participants. Interviews have an ethical dimension because of the interaction between two parties (researcher/interviewer and interviewee) to produce information about the other party's (interviewee) conditions or experiences (Cohen et al., 2018). Confidentiality and privacy of people participating in research must be protected (Creswell & Poth, 2016). To ensure that ethical issues for this study were considered, I maintained the following.

- a) **Ethical clearance:** Full approval for this study was obtained from UKZN's Humanities and Social Sciences Research Ethics Committee (HSSREC) on 20 October 2020, protocol reference number: HSSREC/00001966/2020. See Appendix 5, the ethical clearance approval letter from the committee.
- b) **Gatekeeper's permission:** Conducting research that involves UNISA graduates involved getting permission to access information of graduates from the Gatekeepers. Gatekeeper's permission was granted by the Research Integrity Manager: Research Support Directorate at UNISA. See Appendix 4, the gatekeeper's approval for this study.

- c) **Informed consent:** Consent to participate in this study was obtained in writing from participants who voluntarily showed interest to take part in the study. Signed consent forms were received from participants after they were shared with them via email and explained in detailed by myself. In general, the study's informed consent form explained the role that the participant would play in the study whilst assuring them of confidentiality and privacy. In addition, it also informed the participants that their participation was voluntary and that they were allowed to withdraw at any time during data generation. See Appendix 2, the informed consent form of this study.
- d) **Declaration form:** Participants who took part in the study signed declaration forms voluntarily and agreed to participate in the study. See Appendix 3, the declaration form that was signed by participants.
- e) **Anonymity and confidentiality:** The real names of the participants were not mentioned, written or recorded during the data production and generation process. Permission to use the recording app or record the telephonic interviews was granted by the participants before the commencement of each interview. The recording app containing participants' interviews was installed on a password locked computer and it requires a pin code only known by myself. Qualitative data generated is presented according to the pseudonyms which were given to the participants. This was done in order to ensure confidentiality and privacy.
- f) **Respect for human dignity.** The ethical principle stipulates that individuals are autonomous, meaning that they have the right to self-determination (Cacciattolo, 2015). Participation for this study was voluntary, therefore, participants had the right to withdraw from the study at any time, refuse to give information and ask for any clarification, if any, about the purpose of the study.
- g) **Quality assurance:** Measures to ensure trustworthiness, credibility and dependability were adopted. As mentioned, purposive sampling was the main point of sampling for this study and I made sure that the selected participants fit the inclusion criteria. Open-ended questions that were asked during the interviews were created on the basis that they would answer the research questions of this study. All interviews were transcribed by myself and were subjected to quality checks with my supervisor. In addition, credibility of this study was ensured by doing member checking after the interviews were transcribed. Therefore, I went back to the participants to discuss the interviews to double-check for any gaps that I could have missed during the process of transcribing the interviews. In terms of the consistency and reliability of the

research findings and the degree to which research procedures are documented, dependability was ensured by describing how the data was generated, the type of data that was generated and giving a robust description of the methodology used, which are all aligned to what has been done by other previous studies.

#### **4.6 Data analysis strategy**

Phenomenography is focused on ways of experiencing different phenomena, ways of seeing them, knowing about them and having the skills related to them (Walker, 1998). The study aimed to identify the multiple conceptions that graduates have on teaching and learning of research skills via distance education. As phenomenography is empirical research, I was not required to study my own awareness and reflection, but awareness and reflection of the graduates that were interviewed (Ornek, 2008). Therefore, the bracketing approach required me to analyse both the interview and the data open-mindedly, without any input from my perspective of the way I experienced learning research skills and knowledge through the same Research Methodology module that was under study.

During data analysis in phenomenographic research, the researcher is expected to identify qualitatively separate categories that describe the ways in which different people experience a different concept (Ornek, 2008, p. 9). These categories can be found in the interview transcriptions (Booth, 1997). The study conducted by Sjöström and Dahlgren (2002, pp. 341-342) stated that the analysis includes certain steps. These steps are as follows:

- **Familiarization-** that means the researcher becomes familiar with the material by means of reading through the transcripts. This step assisted in making the corrections in the transcripts.
- **Compilation-** this process includes compilation of answers from participants to a certain question. The researcher should identify the most significant elements in answers given by the participants.
- **Condensation or reduction-** this is a reduction of the individual answers to find the central parts of a dialogue.
- **Preliminary grouping-** this stage is classification of similar answers.

- **Preliminary comparison-** at this stage, the researcher conducts the comparison of categories.
- **Naming of categories-** the researcher creates names for the categories
- **Contrastive comparison-** this includes a description of the character of each category and similarities between categories.

In the case of this study, I engaged in an interpretative relationship with the transcriptions to capture the true meanings and lived experiences of the participants. This was done through coding the transcriptions and categorizing the codes into salient themes that reflected the experiences of participants. The emerging themes were connected to understand how they relate to each other and thus I was able to draw a chronological relationship between and among the emergent categories. This also involved theoretical ordering by the research questions.

#### **4.7 Limitations**

Although research can be planned and implemented according to initial plans, no study is a perfect study because there are always unexpected events or disruptions that tend to change the directions and methods of the research being conducted. This study was conducted after the initial stringent lockdown period of the COVID-19 pandemic, which did not allow face-to-face interaction. Initially, I had planned to conduct face-to-face interviews to have a great feel of how it is like to interact with the human beings being studied. For that reason, all interviews were done virtually and telephonically to minimise risks of contracting COVID-19. Limitations to this included a challenge in establishing a rapport prior to the interview, as it was not possible to interact with the participants physically. In addition, I had less control over the distractions that participants faced during the interview process.

Some studies have highlighted issues of conducting interviews telephonically, suggesting the challenges of not being able to verify if the participant is whom they say they are (James & Busher, 2009; Woodfield & Iphofen, 2017). Semi-structured interviews can be time consuming and I experienced delays in finishing up the interviews, which posed a

threat to the study's timeframes. However, the above-mentioned limitations had to be mitigated to ensure reliability and validity of the results. In response, I was deliberate in establishing a rapport prior with the participants to asking the interview questions and was able to limit unforeseen distractions by asking participants to propose a suitable time and date to conduct the interview, rather than imposing time on them.

#### **4.7 Conclusion**

This chapter has presented a comprehensive discussion of the research methodology selected for this study. A detailed phenomenographic research approach was discussed. The study context section discussed where the study was conducted and a brief history of the institution, UNISA, where the study was conducted.

It is noted that the current study on graduates' learning experiences of research skills employed phenomenography as a research methodology. The interpretive research paradigm grounds the subjectivity of graduates' construction of their learning experience of the phenomena. The chapter further discussed the data generation processes, including the two sampling techniques, which were purposive and convenience sampling that were used to guide the study.

This chapter also presented the profiling of participants demographic characteristics table using pseudonyms as participant identities for the purpose of protecting their identity. Further the chapter presented a discussion on the interview processes, ethical considerations, data analysis strategies and the limitations of the study.

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## CHAPTER 5: PRESENTATION OF FINDINGS

### 5.1 Introduction

The previous chapter provided the description of the research methodology and how the data was produced and generated to answer the research questions. As explained previously, qualitative data analysis includes organising, explaining and making sense of data in accordance with the experiences and perceptions of participants being studied. In addition, it is a process of consolidating information from different participants and analysing it based on what is similar and different from their perspective (Green et al., 2012; Cohen et al., 2018). This study aimed at exploring and understanding graduates' experiences of learning research skills and knowledge through the Research Methodology module offered by UNISA via the distance education mode. This study required Honour's graduates (the participants) to reflect on their experiences of learning whilst undertaking the Research Methodology module via distance education to understand how they were able to transfer that knowledge and skills gained to their current research endeavours either as postgraduate students (masters/PhD) or as researchers in the world of work.

This chapter presents the findings of this study, which were drawn from interviews with ten UNISA alumni/graduates who did the Research Methodology modules at the Honour's level. The data were analysed using the seven steps mentioned in the previous chapter, section 4.6, of the data analysis strategy as propounded by Sjöström and Dahlgren (2002). Hence, the findings are presented as themes, including sub-themes and verbatim quotations were extracted as evidence of what the participants had shared about their experiences during the interviews. In addition, I adopted Smith et al.'s (2022) framework to analyse the data, which entails reading and re-reading the data for familiarity, initial noting and highlighting the emerging themes. This chapter is divided into two sections; the first section provides the analysis of participants' demographic characteristics and the second section is the presentation and analysis of the qualitative data that was produced during the interviews.

## **5.2 Sample demographic characteristics**

The final sample for this study consisted of ten UNISA alumni/graduates aged 18 years or older. Black African (8/10) and male (7/10) participants were slightly overrepresented in the sample. The institutions where the participants completed their undergraduate studies were equally distributed, with two (2/6) from each of the three universities; UNISA, UKZN and WSU respectively and one (1/4) from each of the remaining universities; NMU, UP, UCT and MUT. All participants were verified to have successfully completed their Honour's degrees at UNISA with seven (7/10) reportedly being full time students during their Honour's study. Half of the participants (5/10) did their Honour's degree in the Science department and four (4/5) were in the Education department and one was enrolled in the Finance department. More than half of the participants (7/10) expressed that they had registered for the Honour's qualification and the Research Methodology module for the purposes of pursuing further postgraduate qualifications (masters/PhD) or a career in research.

## **5.3 Emergent themes**

The themes that emerged during the analysis of the data that was produced during the interviews were as follows: pre-enrolment knowledge and expectations, learning process and experiences and post-learning reflections. The findings are thematically analysed using the seven steps of phenomenographic data analysis process and are aligned to the Theory of Constructivism and the Socio-cultural Theory of Human Learning. In addition, the findings also responded to the research questions outlined in Chapter one.

### ***5.3.1 Pre-enrolment knowledge and expectations***

During the interviews, I was interested in gaining more insights about the participant's knowledge of the Research Methodology module, and to understand their expectations of the module before they registered. The sub-themes that emerged include participants' reasons for enrolling in an institution that offers distance education, prior knowledge

about the Research Methodology module, expectations about the Research Methodology module before registration and experience of career guidance prior and post registration.

### **5.3.1.1 Reasons for enrolling in distance learning institution**

Participants were asked to share the reasons for choosing to do their Honour's studies via distance education as opposed to a traditional institution. During the interview, they expressed that one of the main reasons for enrolling at UNISA for an Honour's degree was the option of distance learning since they were full time employees.

PChantalM: *I decided to study via distance education because I was a full time employee at the time and...doing honours was quite expensive. So, I had to be employed and distance education was my only option to be able to study and work at the same time.*

PMenziN: *After graduating, I had to go and look for job opportunities. When I [found the job and] started working, I decided to go back to university and further my studies. Since I was working full time when I made this decision, I had to study part-time via distance education.*

Three participants expressed their willingness to further their studies but they could not risk it by resigning from their jobs because they needed money to sustain their livelihoods. Hence, they took a decision to study part time via distance education whilst they were working.

PMuziM: *My aim was to continue with my studies, but I could not afford to leave my job at a time. So, my only solution was to go with distance education.*

PSeanS: *I completed my degree quite late at the age of 21 and I had to go straight to work [labour participation].I could not study full-time because of work.*

Two further participants shared that it was not a choice for them to study via distance education but it was as a result of not having sufficient finances.

PThobileD: *I started at UKZN but because I was unemployed and could not afford transport money to attend classes every day and to pay for my studies, I decided to register part-time the following year at UNISA.*

PZamaniG: *It was not really an option. I did try to get into other institutions for undergraduate, but I did not afford the registration fee at these institutions and UNISA had an option to not pay registration. So, I decided to enrol at UNISA and ended up doing all my qualifications there.*

Other participants noted that they decided to study at UNISA as a result of being motivated and inspired by their colleagues, who advised them to pursue postgraduate studies to further develop their research skills.

PKhayaM: *My scope of work required me to get higher [postgraduate] qualifications, so that I could execute my duties successfully with confidence as well as to develop myself on a personal level. So, I decided to apply at UNISA via distance learning because other institutions did not allow [admit/accept] part-time students and they required 80% attendance of classes.*

### **5.3.1.2 Prior knowledge of the Research Methodology module**

Participants were asked to share their prior knowledge of the Research Methodology module. During the interviews, it was clear that some participants had some knowledge about the module, whereas some did not know what they were putting themselves into when they registered for the Honour's degree. It was interesting that two participants already had research experience prior to doing the Research Methodology module.

PMenziN: *I'm working for a research institute. I needed to gain more research background.*

PKhayaM: *I was already exposed to research at my workplace and it required a formal qualification.*

Four participants expressed that they did some research about the module before registering for it. They also emphasized that they already knew people who did the same module and mentioned that their expectations were fairly good because the people who did the module did not paint it in a negative way, but they vouched for it in terms of giving students tools and skills to conduct research. In addition, these participants also knew that the module would take tremendous amounts of their time and they had to plan accordingly.

PChantalM: *My expectations were fairly good because I had a 30-minutes conversation with a UNISA alumni, who had also done the Research Methodology module. So, I already knew I would be expected to put a tremendous amount of work.*

PZamaniG: *I was actually tutoring at UNISA. I tried to know as many people as possible and would read study guides before I actually do the module. I would prepare or start doing the module during my holidays and the only thing that would be left was to do assignments.*

PMuziM: *When I selected a program to register on the website, it gave me the modules. So, before choosing the module I did some research about the modules to see which ones I could register first, considering that I had to manage my time.*

Two participants expressed that they did not have enough knowledge about the module, but they were looking forward to doing it because they would need it for research purposes in future.

PCeboBM: *I did not have enough knowledge about research methodology module prior to the registration. I just knew that I needed it since I was in science because we do a lot of research work.*

PPitsoM: *I had attended a lot of seminars and I knew the importance of the research module.*

Other participants noted that they did not care much about the module, hence they did not do any research about it because the only thing that mattered for them was a pass and to get their Honour's degrees.

PNosiceloC: *I was not aware of the module and any other kind of knowledge to expect. My priority was to pass and get my Honour's degree.*

PThobileD: *I just wanted to do my Honour's and pass. I did not do any investigation about the modules before registration.*

### **5.3.1.3 Prior expectations about the Research Methodology module**

Participants were asked to share their experiences on prior expectations about the Research Methodology module. Considering that the module is offered in a distance education mode, I was interested in understanding how participants viewed the module before enrolment and if they had any objectives in terms of using the module for future research work or a career in research. During the interviews, one participant expressed that they expected to gain research competencies and skills from the module.

PCeboBM: *I just wanted to get the basics of how to conduct research. I expected that I would be a professional researcher by the time I get my Honour's degree!*

Many participants noted that they did not know what to expect from the module, but they were open to committing their time to finishing the module.

PMenziN: *Well, at first I did not know what to expect and how, you know, the studies were going to be laid down.*

PChantalM: *I expected a tremendous amount of work and I did commit a lot of time in the module.*

PSeanS: *I knew from the word go, that I needed to learn to manage my time and sit on the internet a lot since I did not have a lecture in front of me.*

One participant took the module very lightly and thought it would offer 'basic' research education. Although doing the module was something that they decided at a later stage, they expected the module to be easy, but they expressed that it was actually difficult.

PNosiceloC: *As I said that this was just a sudden decision, I expected this would be easy, but it showed me flames [expression of difficulty]!*

One participant also noted that they did not really know what to expect from the module and it showed that they were not sure what the module would entail.

PThobileD: *I do not know. I registered and waited for the study material so that I know what was expected of me.*

#### **5.3.1.4 Career guidance prior and post registration processes**

Participants were asked to share if they received any type of career guidance prior and post the registration processes to understand how they thought about the use of the knowledge and skills gained from the Research Methodology module after graduation. During the interview, it was interesting to hear that the university offered the participants some form of guidance and advice on how they can best use the module content in future research careers.

PChantalM: *Well, I did say that I consulted with the UNISA alumni, who assisted me with the information regarding the Honour's programme that I wanted to register for, including the Research Methodology module.*

PMuziM: *After I registered, I created my account and I went through online portal. I then could actually be able to get assistance from the lecturers.*

Although not many participants were aware of career guidance trainings. The few that were aware of this type of assistance provided by the university noted that they did not attend the sessions because they were not compulsory and they were lazy to attend them.

PCeboBM: *I think career guidance is provided by the university but I did not even bother to find out what I needed to do to get guidance. I just registered.*

PPitsoM: *Yes, but it was a voluntary training and it was not part of a compulsory thing for the module. So, if you are employed you had to take the day off and I could not attend.*

One participant noted that they received words of encouragement and guidance from colleagues at their workplace, who also motivated them to register for the Honour's degree. However, this participant did not express if they were aware of the career guidance training offered by UNISA before registration.

PMenziN: *Luckily for me, they always encourage us to continue with our studies. I got guidance from my co-workers, who also motivated me to register for my Honour's degree.*

### ***5.3.2 Learning process and experiences of learning research knowledge and skills***

The second theme that emerged during the interviews was on the learning processes and experiences of the participants. This category of the theme emerged from exploring the graduates' experiences of learning research knowledge and skills through the Research Methodology module. This included their experiences of the forms of assessments and the proactivity of feedback after assignments. The sub-themes that emerged in this particular theme include the transitioning experience of being formerly a full-time student at a traditional university to being registered at a distance-learning university, experiences with the accessibility of study material and contact channels provided by UNISA, introduction to the module, experiences of the student support services and the experiences of the module assessment.

#### ***5.3.2.1 University transitioning: traditional mode of learning to the distance mode of learning***

In understanding how graduates experienced the transition from learning through the traditional contact mode of learning to learning via the distance mode, I explored graduates' experiences of adapting from a traditional contact university to a distance education university. During the interviews, some participants noted that studying at UNISA was not a bad experience and distance learning was not as difficult as they thought it would be, especially considering that they did their undergraduate degrees at traditional contact universities.

PChantalM: *It was not too difficult because, I mean, you know that at a full-time university level, you still do a lot of self-studying, especially*

*in Science. You just get what to study from the lecturer and the rest is all up to you. I did not find it that much different because I was so used to studying on my own. I really enjoyed distance education because it is flexible and I could work at my own pace, but obviously, you do get deadlines.*

PThobileD: *Studying part-time was my preference over full-time. It is easy to change into something that you really wanted to do and I had time to go through everything on the study guide in time because I was unemployed at the time. So, I had enough time to get used to the idea.*

Although some participants mentioned a good experience with transitioning from a traditional university to UNISA, most participants experienced challenges studying in the distance mode of learning. They mentioned that it was not easy because some of them were working full time and had to take care of families. Some participants also found it difficult to learn without being able to access or interact with the module coordinator.

PKhayaM: *It was really not easy because I was working full-time and I was also expected to do research at work, the adjustment of having to also get time after work to study and still have time for the family was a bit strenuous.*

PCeboBM: *Studying and working is not easy, whether it is part-time or full-time. So, I cannot compare the two because I was not working when I was studying full-time.*

PNosiceloC: *It was not easy because after I received my stationary, I still never read through it and when I did, it was close to the assignment due date. Not being able to access the module coordinator for guidance was also a problem.*

Other participants mentioned the importance of time management when you study through a distance learning institution. During the interviews, participants mentioned that they had to dedicate more time for the module.

PMuziM: *What is important, and I think main thing is to get the hang of things and one needs to do time management. Which I think career guidance should be compulsory before you start any module.*

PSeanS: *I had to spend a lot of time on the computer and on YouTube because they had a lot of educational stuff. That meant I had to allocate a lot of time away from my family and focus on the module.*

### **5.3.2.2 Accessibility of study material and course related information**

Participants were also asked about their experiences of accessing study material and course information and how these were made available to them. Their preference of working online or using hard copies was also noted. During the interviews, participants were happy with how the study material was accessible online and how it was delivered to their homes. They noted:

PChantalM: *All the study material was accessible online and it was also couriered as well. I preferred using hard copies because it is easy to make notes when studying, rather than using the computer.*

PMenziN: *Yes, everything actually. It was all accessible online, even the library was online.*

PKhayaM: *All study materials were couriered/ posted and some via e-mails. Contact channels for queries were provided and useful. I never had any difficulties on that part.*

PMuziM: *As long as you have a computer and have access to internet, it is easy, because everything is online. I used some of the material provided to make notes though. Study material and the contact details were freely made available online.*

PThobileD: *I used both the hard copies that were delivered and accessed the material online. I preferred the hard copies because it was easier for me to make notes.*

Two participants mentioned the privilege of knowing how the delivery of study material system works at UNISA, noting that they were aware of where to access the material online.

PZamaniG: *Being an employee at UNISA worked to my advantage because I knew all the channels that one could use to access study material. I did not even have to only use the contact details on the study guide because I could get help from other academics in the institution, as I knew them.*

Although almost all participants were happy with the delivery mode channels, one participant noted that there were delays with the delivery of study material since they had requested them to be delivered to their home address.

PNosiceloC: *My stationery was sent to the physical address that I have provided to them when I was doing the registration over the phone, which was my home address but I work away from home. The delivery of my study material took a while to be delivered at home and that delayed me a bit. With the contact details part, they were all in the study guide.*

### **5.3.2.3 Experiences of the introduction to the module**

This sub-theme presents how the participants experienced the introduction of the module. I wanted to determine whether the institution's approach to the introduction of the module motivated the participants' interest in learning research skills and knowledge. During the interviews, most participants mentioned that the tutorial letter that they received did explain the outline of the module and this enabled them to have a little understanding of what the module would entail and what they were to expect from the module.

PChantalM: *The tutorial letter had the details of the module, and they explained why the module was useful. I was already interested in doing research because in Science, we are expected to be constantly researching.*

PMenziN: *I guess the tutorial letter tries explaining the module and its purpose! I guess since it is a distance mode, the best they could do was to write it on a tutorial letter. I think if the lecture arranged sort of face-to-face session to explain, it would have been more understandable.*

PKhayaM: *Definitely! It did give me an idea of what the module was about, such as a differentiating between quantitative and qualitative research, electronic survey or web-based survey. I cannot really say "it motivated me" but what I can say is that it gave me an idea of the module.*

The rest of the participants mentioned that they did not read the tutorial letter as soon as they received it because what was most important to them was to learn about the deadlines of the assignments.

PNosiceloC: *When I received my tutorial letter, I did not read it straight away. The only time I could read it was when I was about to submit an assignment and I wanted to double check if I was not missing anything. However, I did not have enough time to fully understand everything about the module and my interest was more on submitting my assignments and passing the module.*

PSeanS: *Not that I needed motivation, but the tutorial letter was included the introduction of the module as well as the purpose of the study. It did not motivate me any further than the fact that I had already decided to do the module*

PThobileD: *Actually, for me, I did not pay full attention to the tutorial letter. I jumped straight to the assignments section to check the assignments and due dates.*

One participant who was familiar with how things are conducted at universities that offer in-person lectures mentioned that they preferred having someone (lecturer/tutor) to take them through the introduction of the module so that they could ask questions at the end.

PCeboBM: *For a full-time study, lecturers gave an introduction of the module before we start the first lecture, and we could ask questions, as students. Distance education was different because we had to go with communicating this through the tutorial letter. For me, I think something has more effect if someone else is saying it rather than reading it on my own. I just did not give it my full attention.*

#### **5.3.2.4 Availability of student support services**

This sub-theme presents the participants' experiences with support services that were provided by the institution to assist them achieve the stipulated learning outcomes for the module. During the interviews, some participants noted that UNISA does provides support services to students and the tutorial letter does stipulate the list of textbooks that students can use to further assist them with the particular module.

PChantalM: *The tutorial letter also had the communication channels one could use if they want to contact the lecturers or the department. Whether they were useful is another discussion.*

PKhayaM: *There was a discussion for how to access workbook, online contacts, telecentres and study plans.*

One participant who is still based at UNISA mentioned that some students are not aware of all the support systems and services that the university offers.

PZamaniG: *UNISA had many contact channels and I knew them because I worked there. So, most students are not aware of them or even know that they have support structures during the week when most people are working. And, you know that some students do not check their e-mails and they end up missing organised support groups. Others actually do not have data to connect to these online support channels and I know this because I tutor there.*

Most participants mentioned that they were happy with all the support services that they knew they could access, but for them, it was frustrating to call or send emails to module coordinators and not get a response immediately. Understandably, lecturers have many

students to supervise at the Honour's level, but graduates were not happy with the turnaround times to their queries or emails.

PMenziN: *The university does have support services in place, including an online library which were finely detailed in the tutorial letter. However, most of the times telephonic attempts are not successful and it was better for me when I used e-mail from the details given, like for the lecturers. As much as they took long to respond, they eventually responded. So, the telephone lines were plain useless for me. I'm sorry.*

PCeboBM: *Yes! At the beginning of the tutorial letter, you can see the contact numbers of lecturers and their e-mail addresses. I tried calling their numbers a few times but they were never answered. So, I always had to e-mail if I had any queries.*

PNosiceloC: *I have never been lucky of getting through to the admin office when I needed them for support.*

PPitsoM: *Not having that contact engagement with your lecturer or supervisor was a barrier to receiving support. So, it was not easy.*

Two participants also mentioned that they never really needed any support services from the university. One of these participants noted that they had a study group with other students, and this on its own, was some form of support that they needed to finish the module.

PSeanS: *I never really needed the contact details or support because I feel like having two assignments and doing exam is a ridiculous requirement for online degree and then you get your degree.*

PThobileD: *I saw all the details on the tutorial letter but I never really used them because we formed a group, where we were helping each other with other students.*

### 5.3.2.5 Experiences of the module assessments

During the interviews, I was also interested in exploring the participants' experiences of the module assessments and the feedback. In the interviews, participants mentioned that the assessments were not as difficult as they thought they would be.

PPitsoM: *The assignments were not that difficult, I must say because mostly was multiple-choice questions but when we had to do a proposal and a mini research. Eish! Uh! It was not easy. It was quite challenging, especially when we were just starting, you know, sometimes you would get feedback after a week or so. Mm-hmm! So not having that contact engagement was another thing to add, but at least we managed to understand what was required and expected of us.*

PChantalM: *Our research module was structured in a peered approach. So one of the two assignments would lead automatically to a research proposal at the end of the semester and it did require feedback every step. But we also had online resources like discussion forums and online tuition that helped us to communicate with other students in that platform. It was difficult but also achievable.*

Participants also shared more details on how the module was structured. They mentioned that assessments were done manually, submitted online and feedback was provided via email.

PMenziN: *We had two assignments and an exam which required a research proposal.*

PKhayaM: *Most of the assessments were done manually and submitted via e-mail or online. Others could be done online, and feedback was provided via post way after we have submitted the next assignment because we do not check the post box as often as e-mails.*

PMuziM: *Well, I did my assignments manually and loaded them online. That was easier than posting them. However, I would sometimes use the online Chatbox but, most of the times the lecturers were offline*

*there but other students who had better understandings used to help others.*

PNosiceloC: *We had two assignments, which were multiple choice questions and the third one was long questions. Multiple choice questions are easy to complete online than the long questions, which can be typed on the computer and simply loaded on the system. But, sometimes the system can give you problems. It is always better to load them at least two or three days before the due date.*

PThobileD: *The first two assignments were multiple choice and as you know, multiple-choice questions are tricky but I passed. So, I guess they were not that bad.*

One participant mentioned that they were not happy with how the module assessments were structured. They felt that it was not challenging enough for an Honour's candidate at the time.

PSeanS: *I feel like having two multiple choice assignments, an essay assignment and doing the exam is actually cheating for an online study because I did not even buy the prescribed book. I just found the textbooks legal website and had the older version of the prescribed book and I used that. I did not even read most of my feedback on my assignments because when they came, I was usually almost done with my other assignment. The one feedback I was not happy about was the assignment that just gave back marks and did not offer any comments of where I had gone wrong and where I did good. I really feel that was not motivating.*

### **5.3.3 Post module: learning reflections**

Here, I was particularly interested in exploring participants' reflections on the module and their overall learning experience at UNISA. This theme explored how participants felt about the learning outcomes of the module. They were asked to reflect on the extent to which they had achieved the learning outcomes of the module and whether they were able to apply the research skills and knowledge that they gained from the module to the

first research work that they conducted after graduation. The sub-themes that emerged include learning outcomes achieved, experiences after graduation, perceptions on future improvements for the module and recommendations to future students who register for the module.

### **5.3.3.1 Achieving the module learning outcomes**

Participants were asked to reflect on the extent to which they achieved the module learning outcomes. I was interested in understanding how the participants felt about their learning of the skills and knowledge that they gained about research through this module. During the interviews, participants reflected on their learning and whether they achieved the outcomes of the module in being competent in understanding the research process.

PChantalM: *This module is just a foundation. We need to understand that research is constant.*

PCeboBM: *With an understanding that research methodologies are not a once-off thing exercise, it is an ongoing exercise. Same as the module, it only provided the foundation to understanding research terms and concepts. However, it was a bit tricky to practically apply the skills I had learned to my first research. I had to refer back to the module prescribed book a lot.*

PNosiceloC: *Basic education to research does not do a lot of research. So, for me, I only had to reflect and go back to the module after I had registered for my masters. When I registered for my master's degree there were a lot of terms that other students who did their honours full time used of which were not familiar to me*

PKhayaM: *Oh, yes I did. I can say that by the end of the module, I could differentiate between quantitative and qualitative research theoretically. However, when it came to actually conducting a research study independently, I required a lot of assistance.*

The participant who was already into research in their place of employment expressed that doing the module was a great decision that he made because it did not only provide

him with the basics, but it also allowed him to incorporate the skills he gained from the module to the current work that he is doing. He noted:

PMenziN: *So, look, I work for the research institute and we do a lot of research and writing. I can say that I achieved the good learning outcomes because I now can write a paper that can be accepted and published by a journal.*

The other participant who managed to master the skills was the one in the finance department who also revealed that even his lecturer was impressed with his work. This is the same participant who felt that the assessments provided by the institution were not challenging enough for an honours degree. His words were:

PSeanS: *I think I did very good mastering the module. In fact, the lecturer for Public Sector Economics asked me if I would be willing to co-author academic journals with her from what I had written. She wanted to turn it into a journal article.*

Other participants did mention that the module was not as easy as they thought. However, they found the module very interesting that they could understand it better in theory rather than in practice.

PPitsoM: *I can tell you now that theory is nothing like when I had to do it practically. Applying the theory, I had gathered from the module went South instead of North. This is because we were just given material to study on our own and do the research on your own, which is not easy.*

PThobileD: *So, when I was doing my Master's degree, I realised how much I did not know about research and I had to go back to this specific module material for reference a lot.*

### ***5.3.3.2 Experiences of conducting research after graduating with the Honours degree***

In this sub-theme, participants reflected on the time they conducted their first research after graduating from UNISA with their Honours degree. During the interviews, participants shared the processes they followed or undertook to conduct their first

research study and how they felt when they were given the task to conduct the research. Almost all participants noted that it was difficult to apply what they learnt when it came to the actual application of the research process in practice.

PChantalM: *It is a bit tricky to apply theory to practice. Initially, it was difficult to get the right structure for my proposal, but I had a lot of guidance from my lecturer who led me up to the right path. So, my topic was on the Impact of Motor Oil Pollution, and that required intensive research, especially for us at UNISA. We did not really have to do the experiment ourselves, so it was basically just a research proposal and it really required guidance at all times.*

PNosiceloC: *When I did my first official research proposal and realised that it was really hard was when I was supposed to do my research proposal for my Master's degree and I found it really difficult. This was mainly because we also had contact classes and other students who did their Honour's degree with other institutions were more familiar with the term usage of research.*

PPitsoM: *It was not easy. It was quite challenging, especially when we were just starting. Not having that contact engagement was another thing to add.*

PThobileD: *I did a mini research proposal at the Honour's level but I did not understand what was going on and got the help from other students, but it was really difficult when I was doing it independently for my Master's degree. I felt like it something I have never learned in my life.*

### **5.3.3.3 Recommendations for future students who register for the module**

Participants were asked to share what advice or recommendations they would give to future students who may wish to register for an Honour's degree and in particular Research Methodology module. During the interviews, participants were very vocal about how they would advise future students and most of them mentioned that they would definitely advise future students to do the research methodology module if they

were interested in doing research as a career. In addition, participants also shared insights on distance learning and its pros and cons.

PChantalM: *No, absolutely! I think based on my experience, I would advise them from the onset to engage with their study material and understand. I would tell them to make sure that they understand what the outcomes of the module are and see how they, uhm, their future ambitions align with the module. We also need to understand that Research methodology is not a once off exercise, it is an ongoing exercise.*

PKhayaM: *Distance learning tends to be isolating at times. Studying by yourself or alone and very rarely at meeting other students can be a solitary experience. A successful distance learning student is able to motivate themselves to study, even when they do not want to and self-motivation is the key.*

PCeboBM: *I would say that students need to read the purpose and outcomes of all the modules they have registered or are to register for. This would give them an idea of the reasons the module was introduced. Also, try to investigate about all the professional support that the institution provides, to be able to meet with research experts and peers in the research community to develop more professional vocabulary and learning habits.*

PMuziM: *I think getting as much help as possible from your peers and from the lecturers and to never be shy to ask questions. It is better to be a nuisance to your peers and lecturers, rather than to just do something you do not understand just for you to pass the module and get your qualification. In distance education, we get a lot of help from other students rather than from lectures. Whether it is right or wrong, we just was to pass the module and obtain the qualification.*

PPitsoM: *I wouldn't advise students to go for distance education. You would need to be prepared to do everything on your own and be able to search for answers somewhere else should you not have access to*

*the lecturer on time. Join in in the WhatsApp groups and chatrooms, so that you can get to communicate with other students in the same shoes as you.*

**PSeanS:** *I went to UCT and I have Attention Deficit Hyperactivity Disorder (ADHD), so I could not sit still behind the desk and listen to some old person rambling. So, I stayed at home and read my textbooks. There were few lectures that were compulsory, but mostly, I taught myself. I think that worked for me because of my condition and I used YouTube a lot to do my own research on my studies.*

**PThobileD:** *I would advise students to attend as many discussion forums and to be honest with you, I always thought those things were just a waste of time, until I began attending them when I started my Master's degree and they are of great assistance, I'm telling you.*

**PZamaniG:** *It is our responsibility as students, to make sure that we get the most out from each module that we study.*

### **5.3 Conclusion**

The themes presented in this chapter indicate that the majority of participants experienced some challenges when they were required to conduct research independently for either work or academic purposes. The fact that most of these students had to transition from full-time universities to a distance learning institution, they required a wealth of academic support from the institution to ease some of the challenges associated with transitioning. With the insight from one of the participants who is employed by Unisa as a tutor, he confirmed that there are available academic support structures in place of which most students are not aware of and are not made compulsory for students.

Sociocultural theory of human learning also states that collaboration with experts and peers of the specific community (research community in this study) encourages self-directed lifelong learning habits (Polly et al., 2017, p. 129). The above findings reveal that students found it difficult to communicate with the lecturers and opted for assistance from other students who did not have the expert knowledge of the module. Therefore, whichever knowledge they could gather was enough for them to pass the module but not enough for

them to become competent researchers in the future and being able to confidently conduct a research study independently.

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## **CHAPTER 6: DISCUSSION, RECOMMENDATIONS AND CONCLUSION**

### **6.1 Introduction**

This study set out to explore and understand the Honour's graduates experiences of learning research through the Research Methodology module that was offered by UNISA via the distance education mode. The previous chapter presented the findings of this study and reflected on the experiences of the participants who are Honours' graduates and are currently engaging in research either as masters/PhD students or who are researchers in the world of work. These findings were presented using the phenomenographic seven steps form of analysis, which produced three themes and sub-themes based on the participants' experiences and perceptions. It was clear that this study was complemented by previous studies, however, it was interesting to see new emerging themes and literature which have not been studied or found before. This study found that distance education remains a perfect mode of study for individuals who are employed, unable to physically access educational institutions and those interested in juggling more than one activity, and this is consistent with other previous findings (Gunawardena & McIsaac, 2013; Simonson et al., 2019b). This chapter provides a theoretical discussion of the findings provides recommendations and then concludes.

### **6.2 Theoretical Discussion**

As guided by the theories of constructivism and socio-cultural model of human learning, this study drew on the experiences of graduates who constructed their own understanding and knowledge of learning research through the distance mode when they were students. Making use of the two theories allowed me to fully understand how graduates experienced learning research skills and knowledge through the Research Methodology module via the distance learning mode. It is envisaged that the findings from this study will provide an opportunity to improve the current curriculum and delivery systems of learning for future students who register for the module. The three main themes that emerged from the data included participants pre-enrolment knowledge and expectations of the module, the learning process and experiences of learning research knowledge and skills and post-module learning reflections. These themes were also found in previous studies, including, but not limited to,

Lim et al. (2008); Bourdeaux and Schoenack (2016) and Palmer and Koenig-Lewis (2011). Bourdeaux and Schoenack (2016) on their themes stated that online students expected instructors to use effective pedagogical strategies on online discussion boards and make feedback more of a conversation, just like it is done in the classroom environment (p. 157). Distance education programs should provide students with knowledge and skills that they would gain from in-classroom education. While Palmer and Koenig-Lewis (2011) study also agreed with the students in this study who stated the importance of pre-enrolment phase. Their study found that positive emotions evoked during the pre-enrolment phase and led to positive emotions post-enrolment. There was association between prospective students' level of involvement with online instructors prior to enrolment (p. 1208).

During the interviews, the participants shared their reasons for choosing to do their Honour's studies via distance education as opposed to the traditional mode of education. It became clear that one of the reasons they opted for enrolling at UNISA was the option of learning at a distance since they were full-time employees. Interestingly, an earlier study published in 2006 found that students strongly preferred distance education because it allowed them to balance their personal commitments more easily such as employment and caring for family members (Hannay & Newvine, 2006). In addition, this previous research also found that distance education provided access to higher education programmes for students who could not attend traditional courses due to expenses incurred with tertiary education. These findings are also relevant to this study as two graduates expressed that studying via distance education was not something they would have opted for but they were forced by circumstances related to the lack of fees and finances to register at a contact university.

The participants also reflected on their prior knowledge or pre-enrolment emotions about registering for the Research Methodology module under study. During the interviews, a few participants had positive pre-enrolment emotions about the research module and it was found that the same graduates had positive perceptions and experiences of learning research after completing the module. These findings are in line with a study that was conducted on the effects of pre-enrolment emotions and students' satisfaction after graduation by Palmer and Koenig-Lewis (2011). According to these two authors, positive attitudes during the pre-enrolment phase led to positive emotions post-enrolment. In addition, their study also found a significant association between prospective students' level of involvement with online communities before enrolment and their level of evoked positive emotions (Palmer & Koenig-Lewis, 2011). This association was also noted in this study when participants shared

that making use of online materials such as watching tutorials and connecting with the lecturers before enrolment gave them confidence with the Research Methodology module which later allowed them to obtain good results. One of the principles of learning as stated by Hein (1991) on constructivism theory was that “one needs knowledge to learn and it is not possible to assimilate new knowledge without having some structure developed from previous knowledge to build on... Any effort to teach must be connected to the state of the learner, must provide the path into the subject for the learner based on the learners’ previous knowledge.” (p. 4). For the institution to develop pre-enrolment communications between lecturers and prospective students would give students knowledge of the module to build on. Previous research shows that students often have few or inaccurate perceptions of modules prior to undertaking their studies and such disengagement leads to poor academic performance (Hassel & Ridout, 2018). This can be addressed by providing pre-enrolment advice to students who wish to apply for enrolment to eliminate the lack of relevance of a module. Students who are aware of the relevance of the modules prior to enrolment had proven to experience fewer difficulties with modules (Hassel et al., 2018; Palmer and Koenig-Lewis, 2011).

Although some participants took the initiative to do an investigation about the module to develop and prepare themselves prior to the beginning of the module, other graduates had no knowledge of the module and did not take the time to investigate what the module consisted of. These participants only began to discover and read about the module from the study materials provided by the institution. Distance education requires students to be in charge of their own studies. Students who take ownership of their own learning are most likely to become lifelong learners (Hira & Anderson, 2021). Taking charge and ownership of their studies may include perceiving control over their work, schedule and also doing their own research beyond the material provided (p. 105).

During the interviews, one participant reflected on the career guidance processes that the university offered them before and after enrolment. While the majority of participants noted that, they were aware of career guidance initiatives or programmes that were offered by UNISA. Other participants had an issue with the training being conducted during working hours and they felt that it was a waste of time. The few that attended at least one training session seemed to understand how they would benefit from the knowledge and skills gained from the Research Methodology module. They also indicated that they were interested in pursuing future research-related careers. This finding is in line with Rizzolo et al. (2016)

who found that professional development activities such as career guidance training promoted job readiness for academic-related careers. In the same study, Rizzolo et al. (2016) also found that graduate students who are working professionals with outside commitments were less likely to pay attention to online training activities because they could not find a balance between working and studying. This is something that this study also found when some participants who are employed full-time expressed that they did not attend the training sessions because they had to juggle work with school and they thought that the sessions were not compulsory or beneficial to them.

Participants also emphasized the reasons for registering for the Research Methodology module. A few of the participants admitted that their current work colleagues who were researchers themselves encouraged them to study further. Studies have highlighted the interaction between individuals' educational experiences and the work environment, and the importance of such interactions in shaping motivation over time (Knutsen, 2011; Zhou & Xu, 2015). In this regard, the participants indicated that they wanted to advance their research skills to increase their chances of being hired in the future. This finding is relevant to the study by Knutsen (2011) who found that the most important factor for unemployed individuals in the US was to pursue college education in order to increase their job opportunities and to advance their personal growth. In addition, another study found that most students who pursue research modules/courses register because they want to acquire more knowledge and intellectual development (de Oliveira Pires, 2009). The review of the literature on research skills revealed that in undergraduate research programmes and in Honour's programmes, students often fail to see the relevance of the research skills module to their majors and/or their careers (Kay H Braguglia & Kanata A Jackson, 2012). Some participants from this study supported this as they revealed that they did not pay attention to the purpose and learning outcomes of the module, as they did not understand the relevance of research skills to their field of work

The participants who are employed within the research institutions or are looking into being employed in the research environment found the Research Methodology module to be more relevant than the majority of participants who were employed in other sectors. The study conducted by Murtonen et al. (2008) showed that students who considered research skills as important for their future research endeavours were more task-orientated and experienced fewer difficulties in learning research skills than other students. This is consistent with this study because most participants who were interviewed and were not in the research space at

the time of the module study, they did not considered research as the relevant part of their work, when compared to the two participants who were already in employed in the research space. This in a way has allowed them to be self-motivated and eager to acquire research skills as opposed to students who were employed in other sectors. In addition, participants from the Faculty of Humanities reflected more difficulties in learning research skills. One participant from the Humanities revealed that they did not pay much attention to the learning outcomes of the module, but rather prioritised completing the assignments with the purpose to obtain their qualification.

Participants shared their experiences of learning research skills and knowledge from the Research Methodology module via distance education and how this mode of delivery impacted their learning and their ability to achieve the module outcomes. Although some participants who had done their undergraduate courses via traditional universities expressed less issues with studying via a distance mode of learning, some found it extremely challenging to study. Most of these participants were employed full-time and did not find it easy to access and interact with module coordinators. For those who did not find it extremely difficult, they mentioned that they distance education was ideal because it allowed them to learn to manage their time properly to get things done. The study conducted by Mungezi (2022) stated that one alumnus from Voices of Refugee Youth shared their experience of doing research methods training virtually and they noted numerous problems including unfamiliarity with the platforms, a challenging learning environment and the need to develop certain online skills (Mungezi, 2022). Challenges mostly arise when students do not know how to manage their time between work and their studies. This also comes back to pre-enrolment programmes that would advise and assist prospective students on ways to manage their time.

Although distance education is meant to be strictly online, participants in this study preferred that some of the tutorials should have been in person or rather verbally communicated. During the interviews, some participants complained that they had to read all the instructions about the course online and they wished that those were communicated by the module coordinator in a video or via an online interaction. Recent studies show that many students still prefer some level of interaction even in online/distance learning (Price Banks & Vergez, 2022; Nishimwe et al., 2022). Module coordinators should discover different ways to inform students about the purpose and learning outcomes of the module. In addition, as stipulated in the tutorial handbook, it would be better to utilise the first online video meeting to discuss the

module and the learning outcomes with students to allow interactions because most students are proven to better understand sessions that are discussed verbally rather than the ones that are written. Socio-cultural theory also mentions that critical thinking is fostered through collaboration with experts and peers in the same community, in this study with the research community (Polly et al., 2017).

During the early stages of COVID-19, most traditional universities were forced to change their contact modes of learning to distance learning to minimise the risks of spreading the virus. Many studies were conducted to explore the experiences of students and lecturers on how the change affected their traditional ways of learning. Many students reported increased stress and anxiety levels and difficulties concentrating (Lee et al., 2021). This is somewhat related to this study because some participants mentioned that distance learning tends to be very isolating at times as students are forced to study by themselves and they rarely meet with other students because everything is online. Research has shown that social connections are important and distance learning institutions should find a better way to create opportunities for connection and exchange among students (Vallade et al., 2020). Distance-learning institutions should offer an opportunity to make campus orientations and tutorials in-person to allow for engagement and social interaction between new students and module coordinators. This study revealed that most participants struggled to get hold of the lecturers either telephonically or electronic mail. Previous studies showed that offering online students an orientation to the institutions demonstrated that it boosts students' confidence levels, allows them to connect with their peers and educators and gives them a sense of belonging and community (Scagnoli, 2001; Britto & Rush, 2013).

In this study, the participants noted that the support services they used, such as WhatsApp groups with other students and the Unisa online Chatbox with other peers assisted them to pass the module. This is consistent with findings by Nichols (2010) who found that online students thought support services enhanced their success and did a pretty good job in helping them advance in their courses. However, there were also participants (in this study) who expressed no awareness of student support services and some were not happy with the delayed responses they would get from the support staff or lecturers of the institution. In addition, they thought it was frustrating to query something and not get a response immediately. Other previous studies have shown that student support services for online students are not integrated with the total student experiences, and this often leads to frustration and withdrawal from the course (Veenstra, 2009; Britto & Rush, 2013).

Many students face emotional challenges related to a lack of self-confidence and preparedness to get everything done (Nind et al., 2020). Motivation and encouragement from module coordinators boost students' confidence to do their work properly. That is why one of the participants stated that they would have appreciated feedback to be done verbally through a video call or some sort of a face-to-face session, where a student can be able to ask questions and be understood why they thought the way they did. In addition, they noted that the module coordinators were not quick to respond to their emails and this was not encouraging for them to put more effort into their studies. Previous research has also found that students felt they gained confidence in their research competence, in their choice of methodology and so on when presenting or discussing their research methods throughout their learning journey (Nind et al., 2020). According to Mulyatiningsih and Sugiyono (2020) this may be lacking in other institutions, but using the Motivation, Inspiration, Realization and Solution (MIRS) approach to teach research methodology increases students' abilities to conduct their own research projects (p. 665). This should include compulsory pre-enrolment seminars and workshops provided to students by the institution. Additionally, the institution should provide workshops to assist students to express their ideas in research.

There is great importance in providing feedback to students in order to improve their whole learning experience (Ahea et al., 2016). In this study, I also explored the participants' experiences of being assessed in the Research Methodology module. Recent research has shown that providing students with meaningful feedback can greatly enhance their learning and achievement (Woolf, 2020). In relation to the provision of feedback, some participants in this study were not happy with the feedback they received from the module coordinators as they thought it was not detailed enough for them to understand where they could improve. This is in line with Ahea et al. (2016) who highlighted that providing quality information to students about their learning is vital to evaluating progress. In addition, providing feedback in a quality form such as allowing peer dialogue in understanding the feedback would mean that the students will not only get written feedback information but also have the opportunity to discuss that feedback afterwards (Ahea et al., 2016). This would allow them to understand the feedback better and improve their learning in future. Overall, the findings of this study suggest that in order for graduates to prosper, there is a need for close interactions between module coordinators and students and this could be done via peer dialogue. This is something the socio-cultural theory of human learning also promotes for learner-centred environments

where there is a need for active problem-solving and critical thinking through fostering collaboration and interaction between educators and students (Polly et al., 2017).

Recently, there has been growing recognition to provide students with the skills used by researchers (Hussey & Smith, 2010; Turner et al., 2018). This has been done to offer university students an opportunity to gain knowledge and skills used for research evaluation, analysis and problem solving, which are competencies that employers require (Jenkins et al., 2008). In this study, some participants mentioned that they did register for the Research Methodology module because they wanted to gain research skills. Their post-learning outcomes showed that they were not completely happy with their decision to register for the Research Methodology module because the module has not allowed them to incorporate and use the skills that they gained in their current work or academic endeavours. The participants who experienced challenges thought that the module was more theoretical and did not provide them with much practicality that they could use in future research work and in reality. This is relevant to Turner et al. (2018) who found that the transition from academic knowledge to practical knowledge could be challenging because students often have poor levels of preparation to conduct research after doing a module or course on research methods. In assessing students' understanding of research methods, there is a need to offer more practicals to the research modules or courses such as allowing students to prepare and implement mini-projects apart from research proposals, writing research reports and academic papers and having a mini-workshop to provide students with an opportunity to report back their research findings. This will allow module coordinators to assess how students understand research methods and whether they are able to incorporate what they learn into reality.

### **6.3 Literature limitations and future research**

The research questions of this study were answered using the available literature and data produced from participants who were interviewed for the study. Due to scant literature on learning research skills through distance education, most conclusions were drawn from separate studies conducted on teaching and learning via distance education vs traditional education, research competencies of masters and doctoral students, honours programs for

research skills and research competencies in the world of work and literature on the experiences of students with distance learning support services.

Although the study managed to show some relevance to previous studies, it was not an easy task to find precise literature that supports this study. Many available studies did not focus on the experiences of learning research skills and knowledge through the Research Methodology modules via distance education, but on experiences of general studying via distance learning. In addition, studies on distance learning are still anecdotal in the African context and it would be interesting for future researchers to conduct more studies on students' experiences while studying via distance education and the implication this has on their learning outcomes and competencies for future work placements. These types of studies are important to assist higher education institutions to re-imagine different ways to teach the Research Methodology modules and other relevant modules. A similar study would also assist the students who are looking into enrolling for the Research Methodology module. As noted, this study was a broader investigation of Honours graduates' experiences of learning research skills through distance education. Further research may test thoroughly how the lack of relevance of the module is connected to the success of acquiring the more specific learning outcomes.

#### **6.4 Conclusion**

The overall aim of this study was to explore and understand Honours graduates' experiences of learning research skills and knowledge through the Research Methodology module offered by UNISA via distance education. This study required Honour's graduates to reflect on their experiences of undertaking the Research Methodology module via distance education and to further understand how that learning related to their skills development and training for future research work. Ten in-depth interviews with Honours' graduates yielded data to further examine their lived experiences through the lens of an interpretive paradigm. The study was qualitative in nature and the interviews were analysed using a form of phenomenographic steps analysis as stated by (Sjöström & Dahlgren, 2002). Three main themes emerged during the interviews and they highlighted the experiences and perceptions with pre-enrolment knowledge and expectations, learning process and experiences and post-learning reflections. The findings of this study were consistent with some of the findings from previous research on graduates experiences of learning via the distance mode. New findings demonstrated the

need to properly plan how distance education institutions should adopt new ways of learning to ensure good learning outcomes for students.

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## CHAPTER 7: CONCLUSIONS

### 7.1 Introduction

This chapter presents the conclusion, recommendations for further research and final remarks. The study focused on Honours graduates experiences of learning research through a Research Methodology module through distance education. The main aim of the study was to understand distance-learning experiences of these graduates. Furthermore, it was to understand how their experience of learning research via distance education influenced their performance when conducting research after graduation either as a masters/PhD student or as a researcher in the world of work.

### 7.2 Summary

Conclusions were drawn from the literature reviewed and data collected from participants who were interviewed for the study. Due to scant literature on learning research skills through distance education, most conclusions are drawn from separate studies conducted about acquiring research skills in different sections, such as teaching and learning via distance education, research competence of masters and doctoral students, honours programs for research skills and research competence in the world of work.

Only the participants who are employed within the research institutions or are looking into be employed in the research environment discovered the Research Methodology module more relevant than the students who were employed in other sectors. According to the study conducted by Murtonen and his peers (2019) discussed in chapter 2 of this study, students who considered research skills important for their future endeavors were more task orientated and experienced less difficulties in learning research skills than other students (Murtonen & Balloo, 2019). One participant from Humanities revealed that they did not pay more attention to the learning outcomes of the module, but rather prioritized completing the assignments and obtain her qualification. Another student confirmed to have read the module outline but found it difficult to relate it to her field of work, until she was expected to conduct a research study for her master's degree. These

statements reveal the importance of pre-enrolment programmes that would provide information about the module, as well as the aims and goals of the module.

Chapter 2 of this study quoted the study conducted by Brunner Huber, Fennie and Patterson (2015), stated that supervisors who participated in their study commented that most of their students required a lot of guidance throughout their research projects (Brunner Huber et al., 2015). One of the participants, who is also a tutor at Unisa confirmed this statement. He mentioned that students do not take ownership of their studies, as expected for distance education. He also mentioned that students feel the entitlement of being attended by lecturers every step of the way. Based on the students enrolled by the institution, lecturers fail to timeously respond to all their messages. This results in lack of communication between lecturers and students. More interaction between students and lecturers may improve the students' performance of the module.

Most students also raised some concerns towards the assessment style used for the Research and Methodology module. Participants hinted that they were not completely satisfied with multiple-choice questions being utilized as a form of assessment in measuring acquired research skills. Participants supported this statement with different reasons. One participant felt like it was cheating to have two multiple-choice assignments because they discovered it to be extremely easy. On the contrary, another participant discovered multiple-choice questions to be tricky and somewhat difficult because the answers options are usually positioned in a way that would trick you. The latter also mentioned that feedback on multiple-choice assignments lecturers' feedback only provided the correct answer, without providing any explanations or discussions on the answers. She further explained that this demotivated her from actually studying hard prior to completing a multiple-choice question assignments.

### **7.3 Recommendations**

7.3.1 In light of the findings of the study, **distance-learning institutions** may consider the following:

- 7.3.1.1 Provision of pre-enrolment programmes to students that applied for enrolment, in order to eliminate the lack of relevance of a module. Students who are aware of the relevance of the modules prior to enrollment had proven to experience less difficulties.

7.3.1.2 Discover different ways to inform students about the purpose and learning outcomes of the module, in addition to them being stipulated on the tutorial handbook. Suggestion would be to utilize the first online video meeting to analyze the module. Most students are proven to better understand sessions that are discussed verbally, rather than the ones that are written.

7.3.1.3 Using Motivation, Inspiration, Realization and Solution (MIRS) approach to teach research skills. This approach was mentioned by Mulyatiningsih and Sugiyono (2020), from the University of Negeri Yogyakarta, to have increased students' abilities to conduct their own research projects (Mulyatiningsih & Sugiyono, 2020). This should include compulsory pre-enrolment seminars and workshops provided to students by the institution. Additionally, the institution should provide workshops to assist students to express their ideas into research.

7.3.1.4 Limit multiple-choice assessment tasks to a minimum. This action may improve motivation for students to learn for a purpose of understanding.

7.3.1.5 Provide notes on assessment feedback for students to gain an understanding of how their answers were incorrect. This task can be completed via any platform that can allow students to raise questions that might arise.

7.3.2 In light of the findings of the study, **distance-learning students** may consider the following:

7.3.2.1 Distance learning students should be self-motivated and conduct their own investigations on the modules they have registered with the program. The investigation purpose should aim to discover the relevance of each module to the program currently registered for, to their field of work and/or to their future endeavors.

7.3.2.2 Distance learning students should attend and participate in discussion fora, group discussions and available online tuitions, as much as

possible. Students are also encouraged to prepare for these sessions prior, to be able to understand what is being discussed.

7.3.3 In light of the findings of the study, **Policy and Practices** may consider the following:

7.3.3.1 Higher education institutions are complex organizations where the institution-wide vision and strategy require being well-aligned with bottom-up practices and innovations in teaching and learning. Introduction to new and improved ways to assist in fostering quality teaching and learning of research skills that may develop effectiveness among the learning communities.

7.3.3.2 Involving graduates (such as the ones that participated in this study) in design, implementation and evaluation of innovative teaching and learning of research skills.

7.3.3.3 Introduce and instill research skills teaching and learning at an earlier stage than usual to have research-minded students who would be used to engaging in critique, challenging tradition.

## **7.4 Further Research**

Based on the literature reviewed, there is not enough research conducted on experiences of learning research skills through distance education in the South African context. These types of studies are important to assist higher education institutions to invent new ways to introduce the Research Methodology module. Similar study would also assist the students who are looking into enrolling for Research Methodology module.

This study was a broader investigation of honours graduates' experiences of learning research skills through distance education. Further research may test thoroughly how the lack of relevance of the module is connected to the success of acquiring learning outcomes.

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## APPENDICES

### Appendix 1: Interview Schedule



#### Interview Schedule

**Title** : Honours graduates' experiences of learning research through distance education

#### Interview Questions

The study will have mixed questions, i.e. closed questions and open-ended questions. Open-ended questions will have footnotes to assist both the interviewer and interviewee on the direction to follow on what information is required.

1. Please state your highest qualification.
2. Was the Research Methodology module a fundamental component of your Honours programme? Yes/ No
3. Did you complete your qualification through distance education? Yes/ No
4. You have successfully obtained your honours degree, please describe your experience of studying research from Research Methodology module through distance education.

#### Footnotes:

- How and why did you decide to study through distance education?
- What were your expectations of distance education before you started?
- How was the registration process?
- How was the study material received? The mode of delivery of study material, the time, contact details for queries if not received on time, whether contact channels provided were useful
- Did the introduction of the module give you an idea of what the module was about, and did it motivate you to want to learn more about the module?
- What student support services that was supplied by the institution and which one of the ones that were provided by the institution were you able to access and why? (such as discussion fora, telecentres, workbook, online contacts, study plans, etc.)
- How were the assessments completed? (tasks required, feedback)
- When you reflect to the end of the module, do you think you had achieved all the learning outcomes as stated on the module outline? (If you did, how did you do it; if you did not, what do you think this was the reason/s?)
- How did the module motivate you to engage in your own research?

## Appendix 2: Informed Consent



### Research Participant Consent Form

*Honours graduates' experiences of learning research through distance education*

#### Consent to take part in research

- I ..... voluntarily agree to participate in this research study.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
- I understand that participation involves my answers being collated anonymously for the use of research.
- I understand that I will not benefit directly from participating in this research.
- I understand that all information I provide for this study will be treated with confidentiality.
- I understand that in any report on the results of this research my identity will remain anonymous.
- I understand that if I inform the researcher that myself or someone else is at risk of harm, they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.
- I understand that signed consent forms and original survey responses will be retained in data format until the results for the dissertation are released and confirmed.
- I understand that under freedom of information legislation I am entitled to access the information I have provided at any time while it is in storage as specified above.
- I understand that I am free to contact the researcher involved in the research to seek further clarification and information.
- I hereby consent / do not consent to record this interview

Researcher : Nonkululeko Ngutshana  
Contact Details : [REDACTED] 210548797@stu.ukzn.ac.za  
Supervisor : Prof Sarasvathie Reddy  
Contact Details : [REDACTED] Reddys15@ukzn.ac.za

.....  
Signature of research participant

.....  
Date

### Appendix 3: Gatekeeper permission to conduct study at the University of South Africa



**GATEKEEPER PERMISSION TO CONDUCT RESEARCH INVOLVING  
UNISA EMPLOYEES, STUDENTS AND DATA**

**REF #: 2020\_GKP\_005**

To: Ms. Nonkululeko Peaceful Ngutshana, UKZN Student Number: 210548797  
From: Dr Retha Visagie; Research Integrity Manager, Research Support Directorate  
Contact Details: [visagrg@unisa.ac.za](mailto:visagrg@unisa.ac.za); [REDACTED]

Date: 22 June 2020

This is to confirm that Dr Retha Visagie, acting on behalf of the Executive Director: Research and Innovation of Unisa, Prof Les Labuschagne, has granted Ms. Nonkululeko Peaceful Ngutshana gatekeeper permission to undertake research involving Unisa employees and data, towards a research study for Master's in Education degree, entitled:

**Honours graduates' experiences of learning research through distance education.**

The gatekeeper permission provides Ms. Nonkululeko Peaceful Ngutshana principal permission to conduct her research at Unisa. However, from a research ethics perspective, her application for ethics clearance will be reviewed on merit, after which the Unisa Research Permission Subcommittee of the Senate Research, Innovation, Postgraduate Degrees and Commercialisation Committee, will consider granting her permission, based on the merits of her application in that regard, to include Unisa employees or students in a survey/interviews. The latter permission is not to be confused with gatekeeper permission and is dependent on criteria that are contained in the Unisa Policy for conducting research involving Unisa employees, students or data

Regards,



Dr R. G. Visagie: Research Integrity Manager  
[REDACTED] [visagrg@unisa.ac.za](mailto:visagrg@unisa.ac.za)

## Appendix 4: Ethical clearance certificate



10 November 2020

**Miss Nonkululeko Peaceful Ngutshana (210548797)**  
School of Education  
Edgewood Campus

Dear Miss Ngutshana,

**Protocol reference number:** HSSREC/00001966/2020  
**Project title:** Honours graduates' experiences of learning research through distance education  
**Degree:** Masters

### Approval Notification – Expedited Application

This letter serves to notify you that your application received on 23 September 2020 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

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

**This approval is valid until 12 November 2021.**

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

**All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.**

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

Yours sincerely,








**Professor Dipane Hlalele (Chair)**

/ms

### Humanities and Social Sciences Research Ethics Committee

Postal Address: Private Bag X54001, Durban, 4000, South Africa

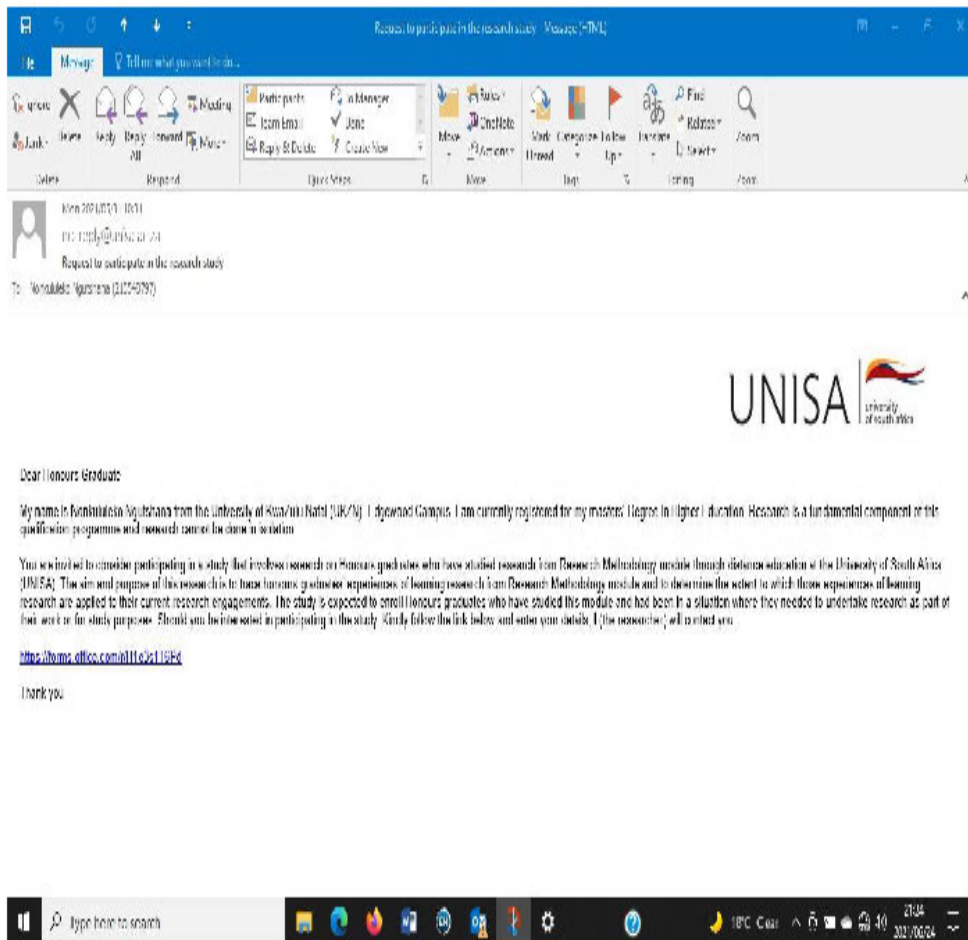
Telephone: +27 1031 280 8330/1557/3587 Email: [hssrec@ukzn.ac.za](mailto:hssrec@ukzn.ac.za) Website: <http://research.ukzn.ac.za/Research-Ethics>

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

**INSPIRING GREATNESS**

## Appendix 5: Interview Invitation Letter

This is a copy of an e-mail, which UNISA sent to honours graduates on my behalf, requesting them to participate in my research study.



## Appendix 6: Turn-It-In Report

### HONOURS GRADUATES' EXPERIENCES OF LEARNING RESEARCH THROUGH DISTANCE EDUCATION

#### ORIGINALITY REPORT

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