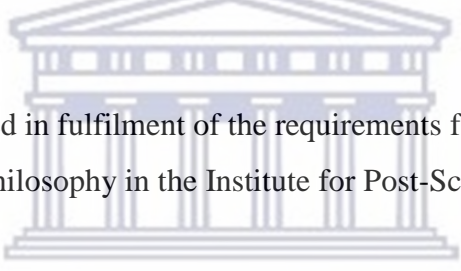


UNIVERSITY *of the* WESTERN CAPE

Faculty of Education: Institute *for* Post-School Studies

**Doctoral study in South Africa:
Exploring practices adopted by African students to attain
completion in the University of the Western Cape**

Thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy in the Institute for Post-School Studies



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Keywords: African students, doctoral study, doctoral education, student experience, completion practices/strategy, habitus, cultural capital



ABSTRACT

This study explores practices that enable African doctoral students to manage their experiences in order to make progress and eventually complete their doctoral study at the University of the Western Cape in South Africa. The study is informed by previous research into doctoral education, which enumerates barriers to doctoral study completion and students' completion strategies, as well as by Bourdieu's theory of practice. It places a focus on students' academic achievement practices, and how these are informed by students' dispositions, cultural capital and experiences during their studies.

The conceptual-analytical framework developed for the study attempts to bring together existing findings of research into the field of doctoral study and insights from Bourdieu's theory of practice. It posits that students who seek to attain completion of their doctoral study have agency and resources that they strategically employ within their social and academic environment and, specifically, within the field of doctoral study. It foregrounds doctoral students' 'resources' such as motivation, work ethic, tenacity, and other personal characteristics, and their personal and familial backgrounds, as well as their relevant skills and competences, which all help to shape and inform their learning and completion practices.

The study focuses on African doctoral students at the University of the Western Cape. It employs a qualitative design using a case study approach that involves in-depth, semi-structured interviews with students to collect relevant data. The sample consists of 18 African doctoral students from across all faculties of the university. For the purpose of the study, African students are identified as students who self-identify as African, whether they are South African nationals (irrespective of official population group) or students from the African continent (international students). They are purposefully selected to enable the study of a group of students that continues to be under-represented in doctoral studies in South Africa. The analysis of the qualitative data involves narrative analysis and critical interpretation.

The study finds that using Bourdieu's concepts of habitus, cultural capital, and field can help us to establish and better understand the practices that doctoral students employ as strategies to overcome barriers that they encounter during their studies. The study shows that African doctoral students' completion practices are strongly influenced by specific aspects of their habitus and cultural capital, which are determined as relevant by the field. The study focuses on aspects of habitus such as motivation, level of family education and status, cultural beliefs, values and home language, as relevant sources of academically relevant habitus. It also shows that the socio-

economic class, status and occupation of core family members provide a bigger motivation for completion of their doctoral study than cultural capital. In relation to cultural capital in particular, the study thus emphasises matters such as prior academic learning; attitudes, skills and competences learnt in the academic workplace (with particular reference to lecturer-participants of the study); an understanding of the university and of the nature of doctoral study; and learning from the supervisor, other academic and research colleagues, peers and role models.

Three attributes of the field of doctoral study are shown to be most relevant to completion: (1) the 'nature of doctoral study' and related aspects such as the choice of the research topic, thesis writing, the use of the English language, and writing and presentation of work in progress; (2) the relationship with the supervisor and aspects of the supervision process; and (3) funding. By focusing on the practices of lecturer-participants in particular, the study argues for a model of doctoral study that conceives of doctoral candidates as 'junior staff members' rather than merely as students, and thus employs them in a contractual relationship that involves elements of work and study.

Finally, it is argued that there is much complexity in the dynamic interaction of the concepts in Bourdieu's 'mathematical model'. In particular, it is shown that there are dynamics by which deficiencies in the field and in the resources embodied by participants are being compensated by means of other aspects of the field, cultural capital and habitus and with new learning and adaptation to generate practices that are beneficial to completion. A number of findings also diverge from Bourdieu's arguments. In particular, the study notes that African doctoral students' habitus is derived from a wider influence than primarily the nuclear family (especially parents), since sibling influence, the influence of extended family members (especially well-educated ones) and a wider social network are important factors.

DECLARATION

I declare that *Doctoral study in South Africa: Exploring practices adopted by African students to attain completion at the University of the Western Cape* is my own work and that it has not been submitted before for any degree or examination at any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

Benedicta Ojiyovwi Daniel-Oghenetega

December 2019



DEDICATION

‘It is by thy grace O’Lord’!

‘For it is He who works in us both to will and do of His good pleasure’ (Philippians 2:13) Unto God almighty who does all things well, I dedicate this academic piece.

To Pastor George Ogheneovo Daniel-Oghenetega, my better half, in whom God placed the hollow into which I fit perfectly well and found pleasure to exercise all my God-given gifts: Thank you for believing in my academic capital and unrelenting habitus. I appreciate you beyond words can describe. I am forever grateful to you for allowing me to satisfy my heart craving and standing by me to ensure I achieve it. Your confidence in me has spurred me on.



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Finally, ‘... and it came to pass ...’ to God be the glory for bringing His perfect thought concerning me to pass. Blessed be thy name, Oh Lord!



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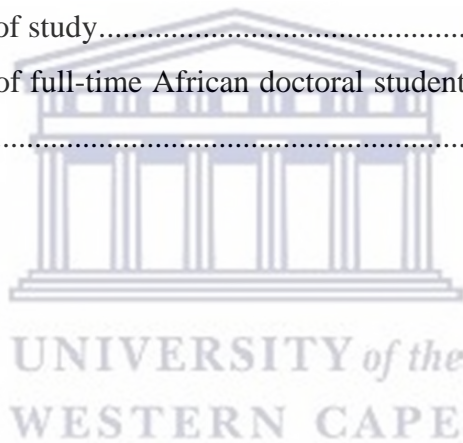
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LIST OF ABBREVIATIONS AND ACRONYMS

AMM	Apprentice Master Model
ASSAF	Academy of Science of South Africa
CCM	Collaborative Cohort Model
CM	Cohort Model
CHE	Council on Higher Education
CHET	Centre for Higher Education Transformation
CHS	Community Health Science
DAAD	Deutscher Akademischer Austauschdienst
DOE	Department of Education
DHET	Department of Higher Education and Training
D.Phil.	Doctor of Philosophy
Pharm.D.	Doctor of Pharmacy
EMS	Economic and Management Sciences
HBU	Historically Black University
HDU	Historically Disadvantaged University
HEI	Higher Education Institution
HEMIS	Higher Education Management Information Systems
M.Phil.	Master of Philosophy
NRF	National Research Fund
Ph.D.	Doctor of Philosophy
SA	South Africa / South African
SAQA	South Africa Qualification Authority
SES	Socio-economic status
UK	United Kingdom
US	United States
USA	United States of America
UWC	University of the Western Cape
WP	Western Cape Province

CHAPTER 1: INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter presents the background to the thesis, along with the rationale and motivation for the study, its relevance and potential contribution to the field of higher education research. It sets out the research problem and research questions, based on the central idea behind this study of African students' completion strategies.¹ The chapter also outlines in broad strokes the conceptual approach and a summary of the research design and methods, and ends with an overview of the thesis structure.

1.2 Background and problem statement of the study

Doctoral education attracts students from various backgrounds who encounter varied experiences during their doctoral journey. Students' experiences of doctoral study may be either positive or negative; as such they may either facilitate and expedite progress and completion or hinder progress to the point of non-completion. While completion of doctoral study has been researched widely in Western countries, there is much less research available on doctoral studies in the African context and specifically into barriers and practices related to the completion of African students. Considering that family cultural practices are among the factors that influence an individual's personal practices, this study seeks to explore African students' practices to attain completion of their doctoral studies at the University of the Western Cape (UWC), a historically black South African university.

The South African higher education system has come to put increased emphasis on doctoral education in the last decade, not only to enhance the quality of the academic workforce but also as a means for researchers to acquire high-level research skills. A further aim is to enhance knowledge production and knowledge output, which is still at a relatively lower level compared with other middle-income countries such as Brazil and Mexico (Wolhuter, 2011; Cloete, Mouton & Sheppard, 2015). In South Africa, participation in doctoral study, including the participation rate of different population groups, is influenced by several factors and phases of the national government agenda under apartheid and post-apartheid.

¹ In this study, African students are defined as students who *self-identify* as African – whether they are South African nationals (of any official population group or race) or students from another African country (international students).

During the apartheid era, the higher education landscape was characterised by a racial and ethnic categorisation of universities, and education funding and support were inequitably distributed along racial lines (Bunting, 2002). As a result, universities attended by African students were mostly rural teaching institutions, poorly funded, and with little academic resources and support. This policy thus not only determined the category of students admitted, but also affected their academic performance. However, the post-apartheid era brought an opportunity for all students to access the universities of their choice, even if various challenges remained.

The representation of African doctoral students who complete their doctorates, relative to the total number of students, has increased at some South African universities. Furthermore, it appears that students exercise various abilities, dispositions, and culturally influenced attributes as enablers to their achievement of academic success. Some scholars suggest that in the face of adversity, students demonstrate determination and resiliency (Lovitts, 2005), competence and being proactive (Grover, 2007) as intrinsic motivations to achieving academic success or completion of an academic programme.

Several reasons have been given for the under-representation of Africans in the academy. Scholars highlight factors such as institutional policies, conditions and environment (Tinto & Pusser, 2006; Kuh, Kinzie, Bridges & Hayek, 2007), as well as the extent of providing resources and support to complement individual students' personal experiences that facilitate the realisation of their goals (Soudien 2010). Similarly, Portnoi (2009) considers the impact of institutional culture as well as overt and covert expressions of racism within the student's institution of learning. These factors appear to inform feelings of discomfort, disorientation, dissonance and alienation, stemming in part from a clash of cultures, in former historically advantaged universities in particular (Soudien, 2010; Kerr & Luescher, 2018).

Herman (2011a) and Jansen (2010) express other reasons for under-representation from the perspective of socio-cultural factors. They note that very few African students have available academic role models, as most of them come from homes where none of their parents had completed schooling and only a very few come from homes where at least one parent had a degree, while postgraduate degrees, especially doctoral degrees, hardly feature in the home environment. Over time, given the post-apartheid dispensation, the number of African doctoral students at enrolment has increased, while graduation rates remain low, especially among African students (Herman, 2011a). Overall, South Africa's production of doctoral graduates is a cause for concern, as despite marked improvement since 2001, the number of particularly African doctoral students is unlikely to meet the targets set in the South African National Development Plan 2030

(Mohamedbhai, 2012). The graduation rate of South African doctoral students is put at 12% to 13% between 2001 and 2009 with a higher limit of 13% in 2009 relative to the enrolment rate (Mouton, 2011). In 2016 the graduation rate of doctoral candidates recorded was 13.5% (DHET, 2019). Depending on age and field of study it takes a doctoral student in South Africa between 3.6 years to 5.7 year on average to complete doctoral study successfully (Mouton, 2011: 20).

Given the high level of skills required for science and innovation systems to thrive and that doctoral ‘training’ represents this significantly, the low levels of enrolment and completion hamper efforts to increase the production of doctoral graduates. It also impacts on the level of qualifications and diversity of academic staff in the higher education system. For instance, in 2019, only 47 percent of academic staff in the higher education institutions had Ph.D. qualifications (up from one third in 2009) while the National Plan’s target to 2030 is 75% (Nzimande, 2019). Despite this situation, there is a paucity of literature focusing on the strategies of those few who complete doctoral study.

Moreover, Mitchell (2007) and Mowbray and Halse (2010) have identified the important role of doctoral students as ‘the army of research ants’ that keeps the research mission of a university a reality. Moreover, on completion of doctoral studies, the country obtains a pool of highly skilled researchers who feed into the overall science and technology knowledge system. Doctoral theses also make original contributions to the body of knowledge in the respective fields of study of successful doctoral candidates (Golde & Gallagher, 1999; also see Mitchell, 2007). Successful doctoral students furthermore increase the status and academic credibility of the university where they study, and contribute to ongoing research activities, training and output. Finally, Durette, Fournier and Lafon (2016) note that the process of doctoral study equips the knowledge worker with the capacity to fit into the global labour market in a knowledge economy. Hence, there is a need to understand the practices adopted by students when in the process of completing their studies.

In the South African context, there is also a great need to understand how to increase the number of doctoral graduates in general, and of African doctoral graduates in particular. From the review of literature for this study, it has emerged that there are various perspectives on the topic, ranging from one focused on barriers to those concerned with completion strategies. However, literature that addresses the questions of completion by observing the practices employed by African students in completing their studies is scarce despite a high attrition rate of doctoral students. This attrition could be on account of a difficulty to handle the accompanying challenging experiences that doctoral students in general, and African students in particular, experience at South African

universities. In the light of the small number of African doctoral students who demonstrate an ability to adopt successful practices to manage the doctoral study challenges, the study and application of viable practices for completion are important factors in addressing this shortcoming and enhancing the production of doctoral graduates.

The failure to analyse the successful African students' actions should be addressed, given the continuous increase in the number of students not completing and the low rate of production of African doctoral graduates (CHET, 2011; Herman, 2011a; Cloete et al., 2015). Moreover, the existing initiatives to identify, address and reduce attrition, and increase retention and completion of African doctoral students and graduates have had a low impact. Therefore, exploring students' practices through a socio-cultural lens, drawing on Bourdieu's concepts of cultural capital and habitus, may provide new knowledge on ways of enhancing doctoral study completion. It may also improve our understanding of the students' diverse backgrounds and the resources they employ when pursuing their doctoral programme, which put them at an advantage towards completion.

1.3 Rationale for the study

Globally, completion of doctoral education within reasonable timeframes varies among the racial and ethnic groups of students within the doctoral population (Golde, 2000; Lovitts, 2001; Martinez & Aguirre, 2003). In the context of this study, given the apartheid categorisation of race and its legacy, the South African black students share similar features with African students from the rest of the continent in terms of their experiences of educational set-backs due to colonialism and slavery (Teferra, & Altbach, 2004; Letsekha, 2013), and also in terms of African cultural beliefs and practices. Thus, an understanding of the practices of African students in general can highlight salient issues in the ways African students in South Africa manage their doctoral experiences to achieve completion.

As noted above, with the doctoral graduation rate of African students being 13.5% (DHET, 2019), an improvement in this rate is important so as to upgrade the teaching and supervision capacity, the qualifications of existing university staff and the academic status of the universities in terms of research and publication output (Mouton, 2011; DHET, 2013). Although the funding model of the apartheid system that denied institutions reserved for black students (today called historically black universities/HBUs), the funding levels allocated to their counterpart all-white institutions have long been scrapped, and the effects of the apartheid legacy remain. Funding alone does not seem to answer the puzzle of why African students still record the highest dropout rate of all racial

groups and thus the lowest rate of completion. The representation of African doctoral students and academic staff relative to those of doctoral students and academic staff from other racial groups remains small in post-apartheid South Africa. More broadly, literature (such as the work of Feinstein, 2005) argues that the apartheid policy was part of establishing a capitalist political and economic system that required cheap labour to secure the subordinate position of Africans in the land. The legacy of this policy remains visible across the economy, and strikingly so also in academia. Thus, it is important to increase the number of African faculty members which could encourage more African students to strive after academic success at the highest echelon. They could be encouraged to emulate good and effective academic ways of involvement in doctoral study by adopting the exemplary practices of successful candidates from the same background. Africans are demographically by far the largest group of the South African population; yet at the beginning of democracy in the early 1990s, scholars such as Cooper and Subotzky (2001) noted that, despite a drastic change in the student population, Africans still represent the smallest proportion of students who succeed in completing their doctoral studies. Thus, as part of the need for equitable representation in all facets of the economy so as to achieve a functional democracy that lives up to the aspirations of the constitution and addresses the legacy of apartheid, there is also the need for equitable representation of the diverse national population in academia (Thaver, 2003).

The long period of being disadvantaged because of slavery, colonialism and apartheid, and their legacy, has left most of the African students across the continent in a socio-economic disadvantaged situation. Such socio-economic disadvantages and the disparity in the quality of the education system to which African students are exposed (Jansen, 2010) contribute to the difficulties they experience in degree studies all the way to their doctoral journey. It also tends to create an erroneous perception of Africans' academic abilities and attainment of academic success as being poor. Failure to acknowledge the relevant skills, abilities, knowledge and competences and the personal dispositions embedded from their cultural backgrounds will result in a lack of appreciation and misidentification of the intrinsic resources that African students possess for their active and successful participation in doctoral study.

Thus, there is a need to explore the academically relevant and influential cultural resources and personal attributes or traits embedded in these students to correct such a wrong perception. This is with an intention to also improve and encourage self-esteem and bring about a positive academic perception of themselves. As will be shown in this thesis, African students tend to emphasise and prioritise the elevation of the social status of their families through the attainment of a doctorate,

rather than seeing this simply as a personal achievement. Drawing on the concepts of Bourdieu's theory of practice, this study explores African doctoral students' personal dispositions and socio-cultural resources against their socio-cultural and educational backgrounds, as these may be relevant in contributing to the successful completion of their doctoral studies. Most African doctoral students come from a working-class background and are first-generation students, lacking to some extent in relevant cultural capital, personal attributes, and the understanding of university culture, which are needed to excel in the academic space and in doctoral study. Thus, this study is designed to play an important role in enhancing our understanding of the practices of a group of doctoral students who are in the process of attaining completion of their studies. Furthermore, there is also a need to improve our understanding of the ways that African doctoral students commit resources to their studies, interact with peers and faculty members, and invest in their academic experience and activities (Zepke, & Leach, 2010). The study addresses the questions of what the successful practices of African doctoral students are, how these are determined by their personal dispositions, family and cultural backgrounds, and what the cultural capital is they have accumulated and continue to develop, which are relevant for the attainment of their academic goal.

1.4 Conceptual framework of the study

This study is situated within a socio-constructivist paradigm and draws on the sociological theory of practice developed originally by Pierre Bourdieu. Using a conceptual framework drawing on Bourdieu enables a nuanced account of African students' experiences, including the differences in their backgrounds, their cultural and educational resources, and their habitus, as demonstrated in the practices that they employ as part of their doctoral studies. The emphasis placed on habitus and cultural capital as concepts in Bourdieu's theory of practice provides a relevant conceptual lens for understanding experiences and practices that students employ to attain completion.

Bourdieu (1984) considers habitus as a product of the interplay between the social structure and free will of an individual over time. This interplay conditions an individual's perception and shapes their current work practices within existing structures. The individual's practices or strategies become products of the habitus inculcated over time as habitus is also influenced by the family and individual's background and past experiences. Similarly, Bourdieu's (1986) cultural capital concept is key to understanding and application of the practice theory. Cultural capital serves as a fundamental link between habitus and field in Bourdieu's equation (or 'mathematical model') of the practice theory (Bourdieu, 1984: 101):

$$(Habitus \times Capital) + Field = Practice$$

Bourdieu (1986; 1993) defines cultural capital as forms of knowledge and skills, education, and various other kinds of advantages that a person may have, which derive from and give them a higher status in society. The cultural capital of an individual interplays with their existing habitus as relevant to the field and thus informs and generates the practices that an individual adopts to function effectively in a given field. The present study uses the concepts of habitus and cultural capital as resources that African doctoral students have, which enable their effective engagement in the field of doctoral study. In operationalising these concepts, the study draws on a review of literature on the barriers to completion and the strategies adopted by doctoral students to mitigate such barriers in the pursuit of their doctoral study.

1.5 Methodological approach of the study

The study uses a case study approach to investigate African doctoral students' practices, with the purpose of gaining an in-depth understanding of the ways students manage barriers in their effort to complete their studies, and of how their different resources in the form of cultural capital and habitual inclinations inform these practices in their pursuit of doctoral study in a South African university. It employs a qualitative interpretive design approach, which is viewed as a suitable approach because it addresses the complexity and fluidity of issues that tend to arise in the experiences reported by individual students. The aim is to achieve a detailed and interpretive understanding of the social phenomenon of engagement in doctoral study (Henning, 2004). In the study, 18 African students (from South Africa and other African nations) volunteered to participate to share their experiences and report their practices, thus requiring an in-depth data collection process on the part of the researcher. The study selected the University of the Western Cape as a suitable site and case, and involved students from six faculties in the university.

The study utilised in-depth interviews as the primary instrument for data collection (see Appendix 6) and involved participants who were purposefully selected, following specified criteria and the required ethical procedures. It used semi-structured interviews, since they allowed for greater flexibility and enabled a loose form of engaging participants with open-ended questions that allow probing for detail and depth of understanding. This facilitated obtaining useful meanings of the students' experiences, strategies and practices. Finally, efforts were made to establish the trustworthiness of the study and the credibility, transferability, dependability and conformability of findings.

1.6 Significance of the study

The study is significant in the context of South African higher education as emphasis is presently on increasing the graduation rate of African students, focused specifically at the doctoral level. The current graduation output of African students in South African universities is still unsatisfactory and of great concern to the ongoing transformation agenda (Cloete et al., 2015). Personal resources, some of which include intrinsic virtues such as determination, persistence and self-motivation, have been identified as crucial for the achievement of success (Lovitts, 2005; Spaulding & Rockinson-Szapkiw, 2012). Academic success at doctoral level may be dependent on many factors, including different approaches to conducting research determined at discipline level such as team research (McAlpine & Norton, 2006), the nature of the programme and discipline (Rovai, 2002; Terrell, Snyder & Dringus, 2009), and student support for their studies by means of funding and bursaries (Wao & Onwuegbuzie, 2011), especially as students who self-finance their studies are less likely to attain completion (Earl-Novell, 2006). Now this study focuses on investigating specifically the personal resources and practices that facilitate completion of doctoral study. The study seeks to provide insights towards a better understanding of what makes academic success possible based on the reflections of individual African students' experiences, their family backgrounds (especially from those from low-income families) and the doctoral programme of the institution. There is empirical evidence that shows that low-income students in the United States, such as many African American, Latino, and Native American students, lag behind students from higher income backgrounds (Gonzalez & Szecsy 2002; Swail 2003). Similarly, African students, especially in South Africa (Wiggan, 2007; Herman, 2011a), continue to lag behind students from higher income backgrounds, consisting mainly of white, Asian and coloured students in the attainment of completion of academic programmes.

It is understood that doctoral students are products of many years of complex interactions with their family of origin and their cultural, social, economic, political and educational environments. Their previous academic experiences greatly influence their ability to successfully complete their doctoral studies. In this study it is therefore important to allow space for a holistic scope and yet maintain a focus on key experiences and on practices that facilitate success and thus provide material for others to learn from.

Furthermore, the study makes a number of purposeful design choices to address current gaps in the literature. Firstly, it selected a former historically disadvantaged university (HDU) in South Africa, the University of the Western Cape (UWC) in Cape Town, as its case study institution; secondly, it focuses on completion of doctoral study – and particularly students' practices towards

completion – as guiding concern; and thirdly, it does so by specifically investigating African students’ experiences and practices from a socio-cultural point of view. Conceptually, the study draws on previous empirical research and Bourdieu’s work to uncover the rich cultural capital and habitus of African students, their personal resources and cultural backgrounds, emphasising the students’ perspective of how completion is achieved despite their challenging experiences. While other studies focus on timely completion, practices of academics at departmental and institutional levels, mentoring and financial support of doctoral students (Wao & Onwuegbuzie, 2011), and supervision and supervisor-student relations (de Kleijn, Mainhard, Meijer, Pilot & Brekelmans, 2012), these studies seldom capture in depth the individual students’ contribution with regard to the intrinsic resources and strategies that enable them to overcome barriers to completion at doctoral level. In other words, in many existing studies, completion of doctoral study is viewed mainly as an outcome of supervisory, institutional and departmental support in terms of the provision of research facilities, a conducive study environment, and so forth, whereby the students’ personal attributes, abilities, skills, knowledge and competences with which they enter the doctoral programme are muted.

Finally, at the broader level, this study implies that there is a need for a paradigm shift in educational research and practice away from a ‘deficit model’ to focusing on the potential, strengths, skills, knowledge, abilities and competences of African students. In a study on institutional culture in South African universities, Higgins (2007: 116) argued that the core problem affecting South African higher education and black students’ experiences was ‘the reality of the uneven distribution of cultural capital’. This study will seek to make visible what may be considered the invisible and under-valued cultural capital (and habitus) of African doctoral students. It is hoped that its findings will provide material for making recommendations for good practice and may inform current South African debates on improving graduation rates, especially from the population group that has recorded the lowest graduation rates and whose cultural capital is frequently considered as being of no great importance or even irrelevant in the higher education context.

1.7 Research aim and questions

The main aim of this study is to identify the practices employed by African doctoral students to attain completion of their studies. Drawing on previous research into barriers to completion and completion strategies and the work of Bourdieu on cultural capital and habitus, this study further establishes how these practices are informed by the students’ habitus and cultural capital in the way they engage in their study and thus navigate their experiences of doctoral study.

1.7.1 Research objectives

As a means of addressing the research aim of seeking to identify completion practices, three objectives are set out for the study:

- To explore the habitus and cultural capital that inform African doctoral students' practices in their pursuit of completing their doctoral studies.
- To explore the experiences of African students in the doctoral process at the case university.
- To explore ways by which the students manage the barriers that they encounter in the doctoral process at the case university.

These objectives can be reformulated in terms of several research questions.

1.7.2 Research questions

The following central research question guides the study: *What are the practices of African doctoral students to attain completion of their doctoral study at the University of the Western Cape (UWC)?* The sub-research questions include:

- *What are the habitus and cultural capital of African doctoral students doing doctoral study at UWC?*
- *What are the experiences of African doctoral students in the doctoral process at UWC?*
- *In what ways do African students manage the barriers they encounter in the doctoral process at UWC?*

Regarding the first question, the study identifies the habitus and cultural capital that inform the practices of doctoral students to attain completion. With the second question, the intention is to provide a better understanding of the experiences that inform the adoption of practices, thus bringing context to the study. The concept of context in this study is seen as a 'field' in Bourdieu's sense of the term (Bourdieu, 1977). Within this context, the experience of barriers in the doctoral process is considered critical because it facilitates the demonstration of students' habitus and the way in which they use their available resources. Similarly, hindering factors also necessitate the initiation and adoption of mitigating practices or strategies. Finally, the third question leads to describing ways in the form of attitudes and behaviours that manifest as practices in overcoming the hindering experiences that the students encounter. In accomplishing the intentions for these

research questions, the study uses a qualitative research design and related methods to generate the evidence necessary to answering the questions and thereby addressing the research aim of this study.

1.8 Anticipated contribution of this study

This study is primarily an empirical investigation of the practices facilitating completion of African students' doctoral study at a South African university. To the best of this researcher's knowledge, no other study has investigated African doctoral students' completion practices from a socio-cultural perspective. It is therefore anticipated that the findings would provide a better understanding of the ways in which African students manage their challenging experiences to attain completion. As noted above, the study seeks to make visible those aspects of the cultural capital and habitus of African doctoral students that are relevant for the completion of doctoral studies. It is also hoped that the findings of the study would provide material for making recommendations for good practice and thus inform current South African debates on improving graduation rates. Trustworthy findings may be disseminated in conference presentations and published in journal articles. The research questions set out above were used as a front lens throughout the process of this research in order to provide guidance and focus.

1.9 Scope and delimitation of this study: Focusing on African students

This study attempts to address some critical issues that emerge from students' experiences by synthesising the relevant literature and emerging findings related to completion of doctoral study. It also addresses the socio-cultural factors relevant to students' academic success socio-culturally while recognising that students do not come to doctoral education as tabula rasa. Of interest are students at doctoral level from racial/ethnic minorities and low-income families, who may be at risk of not completing their doctoral at UWC, yet persistently continue against all odds. More so, the majority who drop out of doctoral study at UWC belong to this minority racial group, as do those students who maintain progress and finally attain completion. The study sample includes students who have completed their first year of study and have passed the proposal stage of the doctoral process. The focus is on understanding the educational experience and practices that enhance the academic attainment of these students. The scope of the study was specifically limited to students who self-identify as African – whether they are South African nationals (of any official population group or race) or students from elsewhere on the African continent (international students) – since those students are the most under-represented in doctoral studies in South Africa in official statistics.

Theoretically, this study is framed around the work of Pierre Bourdieu. The seminal work of Bourdieu provides the conceptual tools of habitus and cultural capital to understand how different individuals' resources generate the practices to manage their challenging experiences. This could account for their academic progress and achievement levels. Empirically, this study's unit of analysis is limited to African doctoral students from six faculties at UWC in South Africa. The study is seen to fill a research gap in that very few studies, if any, illuminate students' perceptions of their experiences and responses, especially African doctoral students.

1.10 Outline of the thesis

Besides Chapter 1, which introduces the study, the rest of the thesis is organised as follows:

Chapter 2 presents the review of literature and provides an overview of the concept of doctoral study, its social function, the structure and process of doctoral study, and models of supervision. It then focuses on the matter of doctoral study completion, emphasising barriers to completion and completion strategies. The chapter concludes by providing a categorised overview of the literature that informs the operationalisation of Bourdieu's concepts as presented in Chapter 3.

Chapter Three presents Bourdieu's theory of practice and the key concepts derived from his theory which guide the study. The chapter focuses on the major features of the theory and discusses the concepts of habitus, cultural capital, field and practice in detail. The chapter concludes by presenting a conceptual-analytical framework (bringing together the literature reviewed in Chapter 2 and Bourdieu's concepts) and proposes a way of operationalising for empirical research by means of a set of interview questions.

Chapter 4 provides a detailed explanation of the research methodology and the procedures followed in the study. The chapter discusses how the study was conceptualised, designed and conducted. It describes the selection of participants and the way in which individual interviews were conducted and how the data was collected. Finally, the chapter presents ethical considerations that explain steps taken before data collection commenced.

Chapter 5 presents the findings with regard to the academically relevant aspects of habitus and cultural capital that students possess and the possible influences in their choice of engaging in doctoral study. The chapter captures data from the students' personal, family and socio-cultural background, and sets out how these influence and build participants' academically related habitus and cultural capital. The chapter also highlights the attributes of doctoral study as a field, focusing on how participants experience these attributes.

Chapter 6 presents findings on the ways participants manage the barriers they encounter within the field of doctoral study. It then focuses specifically on the practices of lecturer-participants and makes the case for a different model of doctoral education in South Africa, which would involve a contractual relationship of working and studying, whereby the doctoral candidate is regarded as ‘employee’ and ‘junior academic staff member’ of the university rather than merely as student. The chapter also discusses my findings on the interaction of the three concepts of Bourdieu’s theory of practice in the determination of the participants’ practices and ends with summary of the chapter.

Chapter 7 revisits the research aims and presents a discussion of the findings and implications of this study. It also presents the summary, implications, contribution and conclusion based on identified practices and how these practices influence students’ experiences. It outlines limitations of the study, and challenges and constraints identified through the study. Finally, the chapter makes suggestions for future research, as well as recommendations and tentative generalisations, based on the responses of doctoral students, towards a better experience in the doctoral journey.



CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter reviews mainly empirical literature on three aspects related to the experiences and practices of doctoral students: doctoral education as the ‘context’ or ‘field’, the challenges or barriers encountered by doctoral students in the process of doctoral study, and strategies employed by them en route to completion. The first part of the literature review is structured in relation to the following sub-themes: the concept of doctoral study, the social functions of doctoral education, the structure and process of doctoral study, and different models of doctoral education. The second part provides a review of empirical literature that delineates important factors found to impact on students’ experiences as challenges they face in relation to non-completion and academic success. The third part discusses strategies adopted in doctoral study to overcome challenges to completion as identified in the literature. Finally, the chapter concludes by presenting the key learnings in the form of matters that may need to be considered when seeking to understand the practices utilised by African doctoral students to attain completion. They are summarised in the final part of the chapter as part of the existing knowledge base that will need to be considered when developing a conceptual-analytical framework for the study in Chapter 3.

2.2 The concept of doctoral study

In the most general sense, doctoral study refers to studying at the ‘zenith’ of the formal education system towards the qualification of a doctorate, which may be designated in various ways; it is thus the means to attain this degree and, in the process, to contribute meaningfully to advancing knowledge (Lovat, Monfries, & Morrison, 2004; Green & Powell, 2005; Porter & Phelps, 2014). Doctoral students are designated in some contexts as ‘early career researchers’ (Kehm, 2006: 68), which recognises this phase of qualification as the beginning of a professional career rather than merely the continuation of a student’s higher education to that level. It also reflects the fact that doctoral study as a postgraduate research programme is at the heart of university research activity, builds crucial research capacity, reproduces the academic workforce, and beyond. Students who complete their studies at the doctoral level – be it professional or academic doctorates – are considered scholars and experts in their fields of study (Kehm, 2006). In the national qualifications frameworks, the doctoral degree is therefore typically at the top of the ladder of formal qualifications and called a terminal degree (Green & Powell, 2005; South African Qualifications Authority/SAQA, 2013).

Globally, doctoral study as a process involves individuals who combine their efforts to bring about the doctoral product, which is the thesis (also referred to as the dissertation in some academic departments) and the qualified scholar/researcher. The individuals involved in the process are members of the faculty (variably called faculty, academics, or more specifically, the supervisors or advisors of doctoral students, i.e. the ‘learned’) who have previously earned a doctoral degree and are recognized as sufficiently senior researchers to guide doctoral students; and the doctoral students (which are also called doctoral candidates, and at times novice researchers, i.e. the ‘learners’) who are training to become researchers (Ellis & Levy, 2009). The aim of this second group of individuals is to produce a standard and original thesis which is certified by the faculty for the award of the doctoral degree. By admission to the degree, the doctoral graduates are qualified as independent, original scholars and researchers that are able to push the boundaries of their various fields beyond what is currently known (and taught). The product of doctoral study is therefore the graduate as well as the new knowledge contained in the thesis. Studies at the doctoral level are therefore different from the Bachelor’s and Master’s levels of higher education in that the doctoral degree is uniquely tied to the requirement of making a novel contribution to knowledge or practice (SAQA, 2012: 12-13; Baptista, Frick, Holley, Remmik & Tesch, 2015).

Globally, doctoral study is mainly perceived as a research-based programme (Nerad & Heggelund, 2011). Some features of doctoral education, both as a process and a product, are highlighted here so that readers can discern the implication of students’ experiences in attainment of progress and completion, especially regarding the barriers they experience.

Austin (2002) argues that doctoral education as a process of research plays the role of preparing the next generation of faculty, and is thus a building block for an academic career. The building of a career involves training and a professional development programme for doctoral students to become researchers, scholars, professionals and specialists contributing to knowledge production (Boote, & Beile, 2005; Gardner & Mendoza, 2010) in an area of study. As such it is an engine for the enhancement and development of students’ abilities and skills in research (Bridgstock, 2009). Of special consideration in this study is a general exploration of the literature that attempts to draw attention to issues that focus on the empowerment and transformation of doctoral students (Lovitts 2008; Schulze 2012).

2.2.1 Doctoral education as the highest level of formal academic education

In order to better understand the practices employed by doctoral students to attain completion of their doctoral study, it is important to consider the various meanings and purposes of doctoral education. As noted above, as the highest level of formal academic education (for degree

purposes), doctoral education provides the educational basis for an academic career (Herman, 2012). It is perceived as a building block for an academic career at the highest level of academia in the university in a disciplinary or professional field (Else, 2007), with doctoral graduates functioning as scholars and faculty members aiming to enter the professoriate (Golde & Gallagher, 1999; Austin, 2003; Herman, 2012). This preparation includes mastery of content in the chosen field of study and demonstration of independent scholarship, which gives doctoral education its research focus. Thus, doctoral study offers students the opportunity to be grounded in their field and advance the field, while enabling them to demonstrate their understanding of the ongoing debates in their field of study. It enhances their abilities to further contribute, from different perspectives, to the development of knowledge in their field without repetition of other scholars' contributions.

Bogle, Dronb, Eggermontc and van Henten (2010) further argue that doctoral students prepared as scholars and researchers through doctoral programmes take up the responsibilities of driving change in society and making important contributions to furthering the course of research. As a research-focused qualification, the doctorate thus involves training students to think critically and rigorously about a subject and translating such thinking into new knowledge and a novel opportunity for advancing society.

This global perspective of the development of a career as a researcher, scholar and faculty member also applies to South Africa (Herman, 2012). Furthermore, given the unique challenges in South Africa, doctoral students in South Africa are to some extent expected to build an academic career, by becoming researchers and faculty members to replace the ageing and demographically unrepresentative professoriate over time. In the post-apartheid context, the South African National Commission on Higher Education (1996) produced the policy platform for the development of a new policy framework and new legislation for higher education. This is expressed through the White Paper 3 on Higher Education (1997: Section 1.3), which defines as part of the purposes of higher education “the creation, sharing and evaluation of knowledge” and “the pursuit of academic scholarship and intellectual inquiry in all fields of human understanding, through research, learning and teaching”. Doctoral education as an important part of pursuing these purposes is vital to the nation.

2.2.2 Doctoral education as an engine to enhance and develop skills and abilities

A related feature of doctoral study is therefore that it functions as an engine to develop and enhance skills and abilities. Park (2007) contends that doctoral education is an engine for the enhancement and development of creativity and innovation, a skilled workforce, and intellectual capital to drive

the knowledge economy. This suggests that there ought to be a strong link between academic research and real-world challenges, with doctoral education functioning as a means of increasing the pace and spread of knowledge production and transfer, and the development of high-level skills. Fallows and Steven (2000) contend that when doctoral students become graduates, they are considered as being at the pinnacle of students' academic learning and achievements and are required to demonstrate the application of a wide range of skills, including skills that are considered to be 'generic' such as communication skills, interpersonal skills and management skills. They furthermore need information technology skills, as well as cognitive skills or the ability for critical analysis (Porter & Phelps, 2014), all or most of which are meant to be provided at a particularly high standard during the period of their study. By means of doctoral study, students are meant to develop more confidence, demonstrate and improve their academic profile through publications, teaching, and networking with other researchers and to operate professionally and academically within higher education, particularly in research-related activities. It also implies that these skills and abilities are relevant to the student for life. Over and above these 'generic' and high-level skills, doctoral graduates are assumed to have specific academic skills to teach and lead other students in research activities, and to drive the knowledge economy through research activities.

Emphasising other associated features of doctoral study, Laudel and Glaser (2008) further argue that the doctoral programme facilitates students' development of independence, resilience, determination, and critical thinking abilities, enabling them to propose solutions to problems in both academic and professional situations. Doctoral study functions as a transitional phase, a training and professional development programme, wherein students make the transition from (dependent) candidacy to independent scholarship as qualified researchers, experts and specialists (Austin, 2003; Lovitts, 2008). Consequently, at the end of the programme, doctoral students who become graduates function independently as researchers who produce knowledge and expand its boundaries in specialised areas as they observe, read, understand and process relevant information from literature with the purpose of establishing themselves in their various fields of study (Austin, 2003; Kehm, 2006). Scholars argue that 'a doctoral student's success is essentially measured by way of his or her research results', which is also meant to indicate the ability to successfully conduct an independent research project (Elmgren, Forsberg, Lindberg-Sand, & Sonesson, 2016: 3).

At this point, it is important to note certain critical perspectives as well. For instance, there is the associated common feature of a new structural component in the early academic career research

training as a result of an increased need for skills and competence: the postdoctoral phase (Melin & Janson, 2006). Nyquist and Wulff (2003, cited in Park, 2007) point out that the changing needs and demands of academia and the broader society are not adequately met by doctoral education through research in the USA and the UK. Nyquist (2002, cited in Park, 2007) argue for the need for doctoral students to be scholar-citizens, possessing the ability to connect whatever expertise and skills they possess to the current needs of society and employers by demonstrating core competencies. In other words, there are various critical perspectives regarding the ability of doctoral education to match skills needs in academia, the knowledge economy more widely, and society at large.

This then gives rise to another feature of the doctoral study, which is the professional doctorate. Leonard, Becker and Coate (2007) contend that doctoral education as a programme enhances the professional development of practitioners in their field of study. Professional doctorates involves the engagement of specialists in doctoral education to enhance their experience in their word and at the workplace. Hence, there are doctoral education programmes designed for vocational purposes to meet job requirements both in the education sector and other research-intensive areas and fields of study.

Given the various meanings and purposes of doctoral study noted in the preceding discussion, the question arises how best to support more students to attain graduation and fulfil the mandate of increasing the number of doctoral graduates.

2.2.3 The social functions of doctoral education at macro and micro levels

The term social function as used here encompasses the spheres of life beyond academics. As shown above, doctoral education serves several functions in the different spheres of human life, including the economy, politics, and social spheres (both at macro and micro levels of society), in the universities, in different fields of study, and also in the lives of individual students and their social circles. Within the academic sphere, Park (2005) observes that there is no clear, indisputable and widespread agreement on the purpose or purposes of doctoral education, or of the doctoral degree attained at the end of the study. Collinson (1998, cited in Park, 2005) notes that in Britain doctoral education provides training for a high level of skills and knowledge component at the system level to meet labour market demands within academia for future researchers. LaPidus (1997) and Elmgren et al., (2016) argue that the original purpose of the doctoral study was to prepare scholars with an emphasis on teaching and grooming other scholars as against preparing graduates for the workplace. In other words, the emphasis here is on providing a labour force for academia and preparing students equipped with the ability to analyse and synthesise research in a

field of study, which is relevant for the continuous existence of a university as a place of high academic achievement.

Although the major impulse of doctoral training is the advancement of knowledge through the production of original research (Philips & Pugh, 2010) and develop the student to become a researcher/scholar (Gardner, 2008; Gopaul, 2016), recent reforms in doctoral education have led to the inclusion of meeting the needs of an employment market other than academia as an objective. Aligning with this contention, Matas (2012) is of the view that doctoral study helps to meet the needs of the ever-changing competitive job market, which goes beyond the walls of academia. In view of the academic function of doctoral education, some countries have focused on equipping doctoral students more programmatically with both generic and specific skills in order to sustain active knowledge production and to remain competitive in international knowledge-based societies. Similarly, from an economic perspective and its impact on society, some scholars argue that doctoral study is used to boost scientific innovation for the economic, social and ecological development of any country, as doctoral students are the lifeblood of research and innovation, providing the country where the research is conducted with a competitive edge (Bansel, 2011).

In light of the preceding discussion, aligning with the emphasis on research and research output, the doctoral study benefit in terms of research is the production of the brightest minds and a hard-earned product (i.e. the thesis) of those four or more years of research gained by the country's higher education system, and the home institution that the doctoral student attended, the department of study and the supervisors who served as mentors and who guided the doctoral student to the completion of the degree (Park, 2007). In addition, the country and institution housing the study benefit from the intellectual property right of the Ph.D. student research. In other words, doctoral study improves the competitive advantages of the country of the research over others and promotes the nation's competitive ability and ultimately its economic sustainability through the training of Ph.D. students.

In addition, doctoral study functions as a means of ensuring that national plans are achieved. Sabic (2014) reiterates that doctoral education builds capacity as doctoral candidates get employed in and outside academia, in the public and private sectors, holding research and non-research positions. Consequently, the increase in human resources at the system level enhances the labour force of a nation through the production of doctoral graduates who are work-ready and knowledgeable, and who are equipped with capabilities and attributes that are relevant to an advanced knowledge economy and potential employers. This implies the current shift in emphasis

towards the production of human resources with high-level and flexible skills that focus on the labour market. Delanty (2001) points out that graduates of doctoral study no longer consider doctoral degrees as a passport to a university job for life. In this regard, Boud and Tennant (2006), Park (2007) and Gardner (2009) note the current diversified nature of doctoral research and programmes.

Correspondingly, Diamond (2006) also considers doctoral study as a means of increasing the national research and researcher base for the purposes of sustaining the impact of research and development on society, quality of life and economic development and as a means of maintaining a nationally competitive position in the increasingly global market of knowledge. Doctoral education sustains the consistent production of new knowledge vital to the existence of the nation's educational and research institutions, academic health and life. Similarly, Jones (2013) notes that recent developments in the United States National Science Foundation and the Woodrow Wilson National Fellowship Foundation reveal that the overall labour market conditions for the non-academic sectors have improved greatly for new doctorate recipients in science, engineering and non-science graduates. This makes doctoral education per se a field of study of global interest.

In South Africa, the production of doctoral graduates also functions as a means of renewing the ageing and demographically unrepresentative professorial staff in the rapidly expanding higher education sector and to build capacity of academic staff in South African universities (Cloete et al., 2015). Consequently, De Lange, Pillay and Chikoko (2011) assert that producing doctoral graduates, especially in South Africa, is a national priority to provide future academics (also see Cloete et al., 2015). Thus, the Academy of Science of South Africa in a study conducted in 2010 emphasised the importance of Ph.D. study as a means to meet the demands for high-level skills in South Africa (ASSAf, 2010). The South Africa government through the National Research Fund (NRF) has also called for the strengthening of the doctoral processes that universities have in place to increase the number of graduates. These studies typically note what Jones (2013) also argue, namely that the improvement of supervision capacity and greater support for doctoral students are crucial for the completion of research study.

Viewing the importance of doctoral education in the light of its function as means of academic capacity building generally and in the context of South Africa, it appears that there is a need for more students to attain completion by learning from and adopting strategies used by those who are in the process of achieving or have achieved academic success. This will only be possible when there is a clearer understanding of successful students' practices.

At the micro or individual level, literature shows that doctoral study enriches the quality of academic life of the students and that they do better if and when doctoral programmes adapt and become flexible to fit the changing requirements and preferences of students and reach a balance between personal skills and attributes and specific (professional/discipline-based) specialist knowledge or skills (Allen, Smyth & Wahlstrom, 2002; Park, 2005; Mitchell, 2007). The development of specialist, professional/discipline-specific competences is, however, often at the expense of the development of transferable skills (Cryer, 1997). Transferable skills include, for example, advanced computer and information literacy, project management skills and networking skills (Gardner, Hayes & Neider, 2007; Buckley, Brogan, Flynn, Monks, Hogan & Alexopoulos, 2009). Efforts related to the diversification of the doctoral programme have captured these skills to make doctoral students relevant to both the private and public sectors of society (Usher, 2002). Individuals who earn a doctoral degree should therefore be in a position to raise the boundaries of knowledge, teach generations of students, occupy and execute leadership positions in professional circles, government and society, and so forth (Nettles, 1990).

In addition, doctoral students are said to enjoy invaluable social and professional life experiences. During doctoral study students are involved in various kinds of interactions with peers and faculty members, at seminars and other fora, and while networking with colleagues during conferences, and so forth. These interactions enhance interpersonal and communication skills and facilitate their membership of highly esteemed networks (Liccardi, Ounnas, Pau, Massey, Kinnunen, Lewthwaite & Sarkar, 2007). The process of doctoral study thus also involves an 'induction' into high-status societal circles. Doctoral students can build relationships of different kinds during doctoral study, including lifelong friendships and professional collaborations and cooperation with colleagues, which have a positive impact on their academic lives (Grover, 2007). Conversely, individuals may lose their social lives and friends to studying for a doctoral degree, having only limited leisure time, losing the ability to socialise beyond the academic community and experiencing challenges to reconcile family life with the pursuit of an academic career (Burton & Steane, 2004; Karp, 2009; Tzanakou, 2014).

Therefore, since this study seeks to explore the ways in which students respond to their varied challenging experiences, the focus should be on factors informing the challenges, the nature of students' responses and how these relate to students' personal dispositions and resources. The next section outlines the key features of doctoral study in more detail as a way of further exploring the rules that govern this field.

2.2.4 Types of doctorates

Globally, doctoral education has been influenced by national and societal needs in different ways and this has made the doctorate degree more relevant (Park, 2007). Doctoral research takes various forms, but it generally requires those admitted to such programmes to have completed a Master's degree or Master of Philosophy commonly encountered in tertiary education systems.

Gregory (1995), Kehm (2006) and Park (2005, 2007) have noted that, over time, the doctorate became diversified, giving rise to various shapes of doctorate, which also varied in models of programmes. The two most common types are the academic and the professional doctorate. This typology affects the doctoral qualification awarded (the academic Ph.D. or a professional degree like Pharm.D. for example). Professional doctorates focus more on a work-based or practice-based research approach and often have a practice component; a professional doctorate is the highest academic credential for a practitioner or specialist with practical experience in the given field (Gregory, 1995). In addition, the development of the professional doctorate encourages the inclusion of a wide range of programmes that are field-specific over and above traditional professional disciplines. Professional degrees also do not universally contain an independent research component or require a thesis, which makes them different from the academic or research doctoral degree, referred to as Ph.D. or D.Phil. Conversely, the academic doctorate uses a more academic discipline-based research approach to doctoral education (Lester, 2004; Candy, 2006; Barrie, 2012).

With reference to the issue of the type of doctorate, Park (2005), Boud and Tennant (2006) further note that the traditional Ph.D. by thesis model has been diversified to include modalities of the degree such as Ph.D. by publication, Ph.D. by project and the 'new route Ph.Ds.'. The diversity implies that knowledge production is no longer a realm relevant mainly to academia but it is also workplace-related; the process incorporates into the doctoral education programme an element of learning in the workplace (Park, 2007). A related variation is the adoption of a structured approach akin to modular master's degrees. Such 'taught doctorates' or 'structured doctorates' differ from doctorates by full thesis (Lester, 2004).

Backhouse (2010) notes in this respect that South African doctoral education strictly involves the completion of a substantial piece of research work. This is produced in a process which involves undergoing guidance by an established scholar (so-called 'supervision' by a 'supervisor') who enables the individual student (or 'candidate') to become an established scholar, develop a career in academic research and establish a network to communicate and collaborate within the community of scholars (Backhouse, 2010).

2.3 Doctoral study structure and process

The process of doctoral programme is not universally identical but can vary by country and within a country, in individual institutions between faculties and disciplines, and even within the internal structure of certain disciplines. In some countries, the doctoral programme is structured, meaning that students take courses or modules before engaging in the research process. For example, according to Nerad and Cerny (1991: 2), a doctoral programme in the US involves ‘five major stages’:

- "(1) course work;*
- (2) preparation for the oral qualifying exam;*
- (3) finding a dissertation topic, selecting a dissertation adviser, and writing a prospectus;*
- (4) the actual dissertation research and writing; and*
- (5) applying for professional employment". (Nerad & Cerny, 1991: 2),*

Typically, the doctoral study process in US universities is therefore quite structured and involves course requirements. The same applies to Canada where there are usually, but not always, a series of course requirements as well (McAlpine & Amundsen, 2011). This contrasts with doctoral education in Australia and the United Kingdom (UK) where there are often minimal if any course requirements, although there are now some courses required by the research funding councils in the UK (McAlpine & Amundsen, 2011). Furthermore, Mouton (2011) notes that in some UK universities it has now become common to register new Ph.D. students for an M.Phil. before ‘upgrading’ them to ‘full’ doctoral candidates which takes place after one year of full-time study (or its part-time equivalent).

There are further perspectives on the structure of doctoral education. Some scholars focus on the core elements of the doctoral programme. Thus, Huttli (2005 in Kehm, 2006) emphasises certain core elements in the European doctoral programme, such as a competitive and performance-oriented selection of doctoral candidates, and the establishment of clear and regulated responsibilities on the side of the doctoral student as well as the supervisor, including opportunities for shared supervision and provision of working conditions. Finally, from the examination’s perspective, Mullins and Kiley (2002) note that in Australia, Ph.D. awards are based on a written thesis reporting the results of a three to four-year research programme. An oral defence of the thesis, or *viva voce*, is only done at few Australian universities and at the request of one of the examiners. In other universities across the globe, an oral examination or so-called *viva voce* may be an integral part of the examination process; a *viva voce* examination then typically forms the second stage in the examination of a doctoral thesis (Murray, 2009; White, 2011). There are

several similarities and differences between doctoral study in these contexts and the typical process in South Africa.

2.3.1 Doctoral study structure and process in South Africa

South Africa has seven out of Africa's top ten research universities (*Times Higher Education* [THE], 2018). The University of the Western Cape is the only historically disadvantaged university (HDU) or historically black university (HBU) among this top tier of research-intensive institutions. The country's 26 public higher education institutions offer a range of study and research options for local and international students across all degree levels; however, 62% of all doctoral graduates produced in 2015 in South Africa came from the seven institutions ranked among the top ten in Africa (Department of Higher Education and Training [DHET], 2017: 21).

In South Africa, the process of doctoral study typically entails writing a pre-proposal; writing a substantial proposal after having been admitted; getting approval of the proposal and clearance for research ethics; collecting and analysing data; participating in and presenting at seminars and workshops organised both at departmental and institutional levels, as well as conference attendance beyond the registered university; writing the thesis; and the examination of the thesis (Mouton, 2011). The written pre-admission proposal serves as a means of identifying and assessing the academic quality and standard of the prospective student and to get details on the area of interest in the field of study to identify a possible supervisor. Based on the availability of a supervisor, the accepted pre-proposal is used to offer admission to the student, and while inside the programme (typically within six to 12 months of admission), the student writes a full proposal as co-determined by the student and the assigned supervisor. While the South African process does not include an explicit examination element at the point of entry, the proposal stage has elements of an examination at some institutions where the proposal must be orally presented to the faculty. The formal acceptance of this proposal, alongside all other accompanying documents (such as data collection instruments), by a Senate body (e.g. a university research committee), is followed by an application for ethics clearance certificates (as well as permissions to conduct research at certain sites), which eventually allows the candidate to proceed to data collection (Mouton, 2011).

Throughout the doctoral process, the assigned supervisor (which may also include one or two co-supervisors) lends formal guidance and support, and in some disciplines, faculty-wide or even institution-wide, there are offers of short courses of academic support to ensure students are sufficiently grounded and skilled before they engage in consecutive stages in the doctoral study process (Fry, Ketteridge & Marshall, 2008). Such courses are not credited for degree purposes (but

may nonetheless be an internal requirement), as the degree is awarded solely based on the examination of the thesis. The typical supervision model at the UWC is the apprenticeship model (see below) where the student has at least one supervisor who may work with one or two co-supervisors. Academic staff qualified to supervise a doctoral candidate at UWC must have a doctorate as a required formal qualification. The doctoral student is considered as having completed when the final edited draft of the thesis is handed in for examination (along with permission to do so by the supervisor). The examination of the doctoral thesis in many countries is either written and/or oral, whereby attention is given to writing and verbal skills (Tinkler & Jackson, 2004; White, 2011), which is a common practice, especially in the UK and USA doctoral programmes (Murray, 2009). However, at UWC examination is typically by written thesis only – there is no *viva voce* – and the degree is awarded once the Senate has accepted a positive recommendation by a Faculty Higher Degrees committee based on the examiners' reports.

2.3.2 Models of supervision

A key aspect of the doctoral education process is supervision. There are several models of doctoral supervision worldwide that reflect key variations, and thus they are categorised differently by different scholars. De Lange, Pillay and Chikoko (2011) point out that the supervision of doctoral students is organised in different ways in universities across the globe, but the most common form of supervision and support is the appointment of one or two supervisors to oversee the doctoral student's research work. De Lange et al. (2011) argue that the doctoral process involves supervision and support framed within the doctoral programme or model as the best way of mediating doctoral learning at university and thus consistently produce successful doctoral graduates to fulfil the country's national priority.

McCallin and Nayar (2012) identify three types of supervision models, namely the traditional model, group supervision and the mixed model. According to these scholars, the mixed model is a combination of the first two models but incorporates new technologies. The traditional model involves a committed and intimate relationship between the supervisor and the student but there could be a co-supervisor; and the group model involves a supervisor and a group of students where there exists a close relationship between the supervisor and the students and between the students as well (McCallin & Nayar, 2012).

Guerin, Kerr and Green (2015: 108) note that supervision practices can be grouped into three broad categories namely: 'traditional one on one supervision; team supervision with a panel of supervisors working together; and cluster supervision with one or more supervisors and several students'. Some scholars consider the group supervision model as a cohort model (CM) and view

it as an alternative model to the apprenticeship-master model (AMM). A common feature across doctoral programme supervision in Australian universities is a panel of faculty (professors) and one or several students (Robertson, 2015).

From these scholars' input, different terms such as 'cohort' and 'group' are used to refer to supervision models that involve more than one student, while 'panel' or 'team' indicates a supervisory relationship involving more than one faculty member. In both cases, it indicates that contrary to the traditional AMM model, such models involve more than one supervisor and many students. The different types of supervision models in doctoral study are discussed in greater detail in the next sections.

2.3.2.1 Traditional supervision model

The traditional, continental European model of supervision is typically described as the 'apprentice model' (Frankland, 1999; Sobic, 2014). Nerad and Heggelund (2011) point out that in Europe the doctoral process is traditionally hinged on the relationship between a senior academic (the 'professor') who may be supported by other members of faculty, and a student. This model, better described as the 'apprentice-master model' (AMM), involves a student working with one 'master' (regarded as the supervisor), with a focus on personal supervisory practice that frames the process and facilitates the student's ability to learn and become an independent researcher/scholar in the field of study.

McCallin and Nayar (2012) note that the traditional model of supervision may in some cases involve two or even three supervisors (i.e. co-supervisors) and one student. Nonetheless, it still operates like the master-apprentice relationship where the supervisor (with or without co-supervisors) is the expert and the student an apprentice who learns by doing (Nulty, Kiley & Meyers, 2009; Parker, 2009).

In this model, supervisors guide the research process in unique ways, as they are not only supervisors in a teaching function, but also have a pastoral function with respect to their students (Gill & Bernard 2008). Typically, the supervisor initiates a strategy to develop the student in keeping with students' individual differences in terms of age, gender, life circumstances, academic background, and so forth. Some scholars advocate the use of this model in doctoral education because of the effectiveness involved in learning the craft of research. Pearson and Kayrooz (2004) note that the supervisor functions as a coach, mentor and sponsor who ensures progress of the research project along with the other roles such as the pastoral role, the advisory role, the quality control role, the supporting role and the guiding role (De Beer & Mason 2009).

The personalised nature of the AMM is pointed out in various studies. Buckley, Brogan, Flynn, Monks, Hogan and Alexopoulos (2009) argue that the British model emphasises the Western ideal of the specialised, theoretical knowledge of the individual, which is passed on with some rigidity in the research process, whereby the student sticks to the supervisor's instruction. Thus, Dunleavy (2003) points out that this model is like the 'sorcerer's apprentice' tradition where the student must learn from an individual supervisor, following all given instructions closely, with little or no thought of the student's own idea or input. Hence, the supervisor, in a personally perceived way, passes on the accumulated wisdom of the act of research in the discipline and comments on the student's writing efforts with an intention of helping the student to produce his or her own big book.

According to Gill and Bernard (2008) the effectiveness of the student-supervisor relationship is the major determinant of student success. This is expressed through positive supervision relationships to promote a student's success, while poor relationships negatively affect timely completion (De Valero 2001; Gurr 2001). Lack of proper supervision may contribute to completion challenges. Thus, the supervision process and supervisor's role are critical in the doctoral experience, the success of a doctoral programme, and the achievement of fast progress and lower attrition rates among students (Halse, & Malfroy, 2010; Lee, 2008). However, Park (2006) notes that doctoral supervision remains a 'secret' activity between the supervisor and the student with little external scrutiny or accountability. Thus, some form of regulation of the doctorate, supervision and development of policies and strategies have been introduced recently to increase accountability, transparency and improve doctoral supervision quality, taking into consideration the strengths and weaknesses of the various types of supervision models (Olson & Clark, 2009; Park, 2007). Boud and Lee (2005) argue that the scrutiny of various models of supervision has arisen inter alia because of completion problems.

This model seems most suitable for adults who are self-directed or already autonomous learners who can work with little or no input from the supervisor to become independent researchers (Manathunga & Goozee, 2007; Dunleavy, 2003). In other words, some adult learners demonstrate independence in their learning experiences and navigate the research process with some ease making this model seemingly appropriate. Contrarily, having two or even three (co-) supervisors and one student in some cases becomes difficult to maintain, especially with the increasing number of research students (McCallin & Nayar, 2012) and the low graduation rate of doctoral candidates.

However, the model poses some challenges to doctoral students, such as the hidden tendency of exploitation, neglect and abuse that students may experience in the supervision relationship

(Sadlak, 2004). For example, among the known weaknesses of AMM are the student's dependency on the supervisor, the potential of poor quality supervision, long time to degree as well as a high number of dropouts (Kehm, 2007). In addition, Nerad (2012) argues that the apprenticeship model is too narrow an approach for students to acquire the required competencies expected to become independent researchers in the contemporary universities. More so, having students follow supervisor's instruction very closely, cause them to have trouble in following their own interests and hunches, so that the close supervision could stifle students' creativity, given the 'sorcerer's apprentice' tradition (Dunleavy, 2003).

Moreover, a student misses out on the benefits of the group dynamics and broader discussions in an interactive session between students and faculty members, thereby limiting the student's capability development to become an active contributor to knowledge (Walker, 2010; Neumann, 2005). Wisker, Robinson and Shacham (2007) also point out these disadvantages of the AMM against the group supervision model which offers cohort interactive support.

2.3.2.2 Team supervision model

The team supervision model involves one primary supervisor and at least a co-supervisor in which a relationship exists between the supervisors and a student, forming a supervision team is embedded in power dynamics between the respective parties (Robertson, 2017; Manathunga, 2012).

With the focus being on research, De Lange et al. (2011) emphasise that this model of supervision and support is adapted according to the changing needs of the students and staff and was set up as a 'structure' to aid in intellect-related advancement and the creation of knowledge. This should occur in a communal set-up, for such an arrangement would allow for nuanced approaches to research besides utilising the requisite environment and sufficient space for critical thinking. Moreover, it will facilitate teamwork (amongst supervisors) and can lead to a desired progressive metamorphosis of the traditional model. Therefore, may serve to thin out the dependency supervisory relationship between the supervisors and the students, which could lend itself to potentially abusive and unequal power relationships (De Lange et al., 2011).

Robertson (2015) considers the team supervision model as one that provides the respective parties involved in the supervisory process with experiences that may be more reliably productive, avoiding the pitfalls of dysfunctional relationships as may be found in the AMM. In other words, the team supervision model offers a safety net for concerns associated with the AMM which typically involves a single supervisor who works with a single doctoral student. Robertson (2017)

raises the issue of successful functionality of the team supervision model anchored in the harmonious power relationship between members of the supervisory team, while the absence of a harmonious relationship creates a major disadvantage of the model. This possibly gave rise to other models such as mixed model of supervision used in the modern, taught Ph.D. model.

2.3.2.3 Collaborative cohort supervision model (CCM)

If the team supervision model involves more than one supervisor supervising a student, cohort models involve several students being supervised as a cohort by one or more supervisors simultaneously. Some scholars emphasise various benefits of the cohort model. These include the following: development of mutual and intellectual stimulation; facilitating the formation of social ties that develop social and professional networks among professors and students; and, last but not least, serving as an important component of the academic support structure – in both the personal and professional sense. This support structure facilitates networking endeavours, thereby making it possible for institutions to establish degree programmes that are easier to complete (Seifert & Mandzuk, 2006; Hyatt & Williams, 2011).

Burnett (1999) points out that developing a cohort model may establish forms of communication that ease the tension and remove psychological barriers in the supervision process, as both the supervisor and the student exchange ideas about various aspects of the doctoral programme (including the proposal and the thesis). Lessing and Lessing (2004) emphasise that this system produces a greater output of graduates in a shorter time than the traditional supervisory approach, because students in groups are able to help each other to learn cooperatively. According to this line of thinking, the task of supervisors is ‘to encourage learners to become critical and creative thinkers on their path to self-discovery and empowerment’ (Van den Berg 2011: 72).

However, there is a need in the doctoral cohort model for capacity development to build a larger team of academics to better facilitate the cohort model of supervision and support. McCallin and Nayar (2012) further emphasise that quieter students and students with English as a second language may find group supervision challenging while others benefit from such group discussions; thus, there is a need for supervisors to mediate by setting ground rules and modelling constructive behaviour.

The collaborative cohort supervision model (CCM) is another form of group model and involves collaboration between supervisors within the same departments in a university, as a form of hybrid model (Burnett, 1999; Sadlak, 2004). According to Burnett (1999), the CCM involves several AAM (the supervisor, co-supervisor and the student) coming together into a group to form a larger

group, with a faculty member functioning as a coordinator for the group. This coordinator operates like the teacher in a classroom setting, ensuring, organising and structuring meetings for the group, while disseminating information to members of the group. This modern model of doctoral education is commonly used in French universities. Sadlak (2004) points out that the modern 'taught' doctoral model involves formal university training conducted in combination with research and professional work in industry as part of a structured programme involving research collaboration with industry. This suggests that this model is practice-focused, involving professional doctorate students. In McCallin and Nayar's (2012) terms, this model could be described as 'blended' because of the involvement of the academic institution, research institution and industry, the immediate environment, infrastructure resource and the communities of people, which create a community of practice (also see, Wisker, Robinson, & Shacham, 2007). This supervision model is focused on the professional doctorate for students in professional fields such as Education, Nursing and Health Sciences, Engineering, Law, Accountancy, Psychology, Management and the Creative Arts (Ellis, 2006; Neumann, 2005; Scott et al., 2004). It is also argued that this model is particularly relevant to policymakers (Neumann, 2002).

CCM as a supervision model is mentioned and discussed to highlight the supervision model common among the Science students in this study sample, who could be considered as targeting non-academic areas of employment and for those already employed and seeking professional and career development for the workplace (Eley & Murray 2009). It also aims to develop students' research capability so that they can be active contributors to the workplace knowledge economy, while enhancing the group development of students and establishing research networks among them (McCallin & Nayar, 2012). Sadlak (2004) notes that this model is facilitated by the new route Ph.D. model which includes course work, generic skills, research training, and research activity, involving more than one supervisor, and which is organised around a coherent scientific project, research area, and/or discipline.

Bituskikova (2009) states that CCM supervision can be organised around a discipline, an interdisciplinary research theme, a research group, or research project. The model is commonly used in the Netherlands, Germany, Finland, Denmark, Norway and Turkey and involves doctoral students from either one university or more than one university, in which case it is interuniversity or it can involve non-university research institutions, as is found in Germany (Bituskikova 2009).

An important advantage of CCM from the perspective of the student experience is that it stimulates students to engage in research due to the enabling environment it creates. Such an environment neutralises the isolation that students experience when they work alone, while the administrative

and supervisory support make it attractive to potential students (Fenge, 2012). This also seems to suggest that this model reduces dropout rates as compared to the AMM (Sadlak, 2004). Some major disadvantages of CCM are delayed completion given students' entry requirements: they often possess substantial work-place experience but do not qualify for Ph.D. entry (as it is the case in many professional doctorate programmes in Australia) which then requires that they undertake formal course work and research training (Neumann, 2005).

Considering the various research challenges, and advantages and disadvantages of the models discussed above, it becomes clear that, ideally, different models of supervision are required for different students; hence, supervisors need to adapt their methods and ensure there is compatibility of the supervision model and style to meet the needs of both parties (Deuchar 2008). Hence, McCallin and Nayar (2012) point out the need for a mixed supervision model which allows multiple supervisor-student relationships and incorporates learning technology so as to provide a support system to facilitate successful completion through research development.

2.3.2.4 Supervision model in South Africa

The supervision models used in the doctoral study in Africa vary because of several factors. Szanton and Manyika (2002) reveal from their study of doctoral programmes in sub-Saharan Africa that the most common doctoral model is based on AMM, individual research, and the production of a substantial thesis. They further argue that some African universities conduct coursework and examinations for smaller groups of students as they find it cost effective, but still face the challenge of few qualified supervisors to make up team supervision a reality. These challenges are common to many South African universities.

De Lange et al. (2011) argue that the NRF has sought to strengthen the processes that universities have in place to increase the number of doctoral graduates and to drive research by a new generation of researchers replacing the aging members of the academy. Some South African universities predominantly employ the individual supervision model of doctoral education as a result of the prevailing differences regarding supervision capacity and resourcing (Cloete et al., 2015). For example, Backhouse (2010) points out that the individual supervision model of doctoral education makes running a doctoral programme possible even in poorly resourced institutions, which are typically HDI and/or HBU of which UWC is one. The lack of enough qualified and experienced supervisors (and the reality of insufficient financial resources and other infrastructure) could explain why the single supervision model is the most prevalent in most disciplines at UWC.

Cloete et al. (2015: 78) show from DHET (2013) data that in 2013 UWC had only 301 academic staff members with a Ph.D. who produced 111 Ph.D. graduates in 2013.

Consequently, besides an effective doctoral model, understanding students' experiences and how these relate to completion is considered important in this study. The next section examines students' experiences effect on completion of doctoral study.

2.4 Completion of doctoral study

From the point of view of the process of doctoral study, completion can either refer to 'the act or process of finishing something' or 'the state of being finished and complete' (*Oxford Advanced Learner's Dictionary*, 2018). At any level of education, completion is an indication of achievement or success that is important because it is strongly linked to the positive outcomes valued by the individuals, a group of people and the society. Gardner (2009) asserts that in doctoral study, the concept of success can mean anything from year-to-year persistence, high grade-point averages, to the state of degree completion, and it is used to explain outcomes such as academic achievement, completion or graduation, and professional socialisation. Therefore, in this study, completion of doctoral study is linked to the notion of success. Success in the process of completion towards attaining a degree manifests as achievement in different ways, such as students making steady progress in terms of consistent engagement in research without dropping out. Given the meritorious nature of academic life, achieving success can be assumed to be the desire of everyone who is engaged in an academic activity, irrespective of age, race, gender and status and nationality. Thus, 'academic achievement' and 'success' are used interchangeably in this study. Completion practices are therefore successful strategies which, in the process of doctoral study, are likely to lead to the state of successful completion of a doctorate. The following sections provide a review of literature to indicate the barriers that students encounter in the doctoral process – as 'barriers to completion' – and the practices that they adopt to achieve success – as 'completion strategies'.

Completion of doctoral study has been globally low, and the programme has experienced the highest dropout rate of all postgraduate studies (Ampaw & Jaeger, 2012). This has become an issue of great concern to all stakeholders such as governments, academic institutions, funding bodies, academic staff and students. The implication of success to the individual is, however, perceived to be the underlying element that encourages students' continuous participation in the doctoral study.

2.4.1 Implication of low doctoral study completion

Completion of doctoral study has several implications for the student, institution and the larger society of the nation. Johnson and Birkeland (2003), from a negative perspective, identify the cost of non-completion as affecting the student's career plans and upward mobility and hampering efforts to achieve the required diversity and equity in higher education to bring about a multicultural workforce at universities and to supply the nation with a pool of diverse leaders, which is needed in a country like South Africa. Moses (2019) notes that the academic success of students from a psychological perspective has immense implications for their personal lives, academic self-esteem, educational zeal and persistence. Similarly, with emphasis on the psychological impact, other scholars point out that a failure to attain completion leads to emotional and personal tolls (Lovitts & Nelson, 2000). Golde and Dore (2001) and Lovitts (2001) note that non-completion can leave students with psychological and family turbulence, huge debt and inadequate career potential; it fundamentally alters a student's personal plans (Golde, 2005).

Smallwood (2004, cited in Grasso, Barry & Valentine, 2009: 6) notes that the results of low completion rates range from the 'waste of limited resources and the 'domestic talent pool' of a university and department to the detrimental effects it has on students' lives. This is further reiterated by Willis and Carmichael (2011) who observe that stalled progress of students' studies not only results in the waste of a university's human and financial resources but also decreases the expected number of doctoral graduates, all of which are unrecoverable. Lovitts (2001) further adds that a lack of completion puts the existence of doctoral programmes and the staff who teach them at risk, as replacement challenges can arise over time, and society misses out on the scientific or social advancement that the students could have created later in their careers. The lack of completion of doctoral study, therefore, is a setback not only to the student and the university but also to society at large. This is further corroborated by the work of Leonard, Becker, and Coate (2005) who conducted a study in the UK of alumni who completed their doctorate and found that the benefits of the doctorate were significant. Non-completion of the doctoral programme is, therefore, an expensive occurrence, not only for society (in terms of a macro perspective) and institutions (at the meso level) but also for individuals themselves.

In a bid to better understand and address non-completion, various scholars have investigated doctoral study from different perspectives and in terms of the dropout or attrition rate, as well as the retention rate in doctoral study. The next section explores studies that specifically consider the barriers to completion and highlights various 'categories' of barriers as well as their implications for the completion of the doctoral study.

2.5 Barriers to doctoral study completion

While the widespread problem of non-completion impacts on students, faculty, university, and society, the sober reality is doctoral completion rates remain low due to some existing barriers that students encounter. Doctoral students often perceive the journey as laden with challenges. For instance, in Australia, a doctoral graduate describes his experience of doing a Ph.D. as ‘a painful experience’ which demanded ‘endurance’, despite indication of an improved supervisor-student relationship, the same individual described his supervisor’s comment on his written work as ‘it’s bullshit ... it’s rubbish’ (Cotterall, 2013: 182). Challenges of this nature, as well as other barriers to completion that inhibit or reduce the level of academic success of students, especially at the doctoral level, are explored in this section.

Completion of an academic programme is influenced by barriers that scholars categorise differently. Studying barriers to postgraduate study completion in the Nigerian context, Asogwa, Wombo and Ugwuoke (2014) emphasise that students’ challenges with respect to research and thesis writing in particular ‘range from an inability to select a researchable topic, to a lack of resource materials, a hostile attitude of supervisors, the lack of will power on the side of the students, the lack of finance, and to ill health’ (Asogwa et al., 2014: 313).

Paulson, Hopwood, McAlpine, and Mills (2010) have categorised students’ experiences in terms of emotional challenges (stress, isolation, feelings of inadequacy), situational challenges (personal, family and professional challenges) and structural/cultural experiences (norms, tacit rules, lifestyles). Another way of categorising students’ experiences has also been proposed by Pyhälto, Toom, Stubb and Lonka (2012), who argue that the experiences of doctoral students have varying impacts on their studies, and this has made successful studying at Ph.D. level a complex issue. They report students’ problems as ‘related to general work processes, domain-specific expertise’, supervision, the scholarly community, and resources’ (Pyhälto et al., 2012: 1). They also found that Finnish doctoral students’ most common barriers are related firstly to general work processes, and majorly ‘to self-regulation, motivation, and self-efficacy, possibly because domain-specific problems are more often at the core of supervision and academic practices’ (Pyhälto et al., 2012: 5). Secondly to acquiring academic expertise, as expressed by all the students from all faculties involved in their study. In the South African context, a seminal study on doctoral student attrition categorised students’ responses in terms of six groups: ‘Work commitments; Academic challenges; Problems with access to facilities and resources; Financial/funding problems; Issues with supervision; and The South African context’ (Herman, 2011b: 45-46).

The different kinds of categories suggest that barriers encountered by students may relate to micro (personal), meso (departmental and institutional) and macro (higher education system and national) levels of experience, with the former two being the most impactful. Thus, this section organises barriers to completion by categorising them broadly in the following way, as related to: (i) personal and psychological factors including issues such as age, family obligations, motivation and self-esteem; (ii) socio-cultural factors including family background, socio-economic background and cultural background; (iii) and contextual and institutional factors related more specifically to doctoral study, the research environment, supervision, institutional culture, peer influences and so forth. These factors are all relevant to the study of African students' experiences and completion practices in doctoral study. Although the factors are classified in separate categories, these categories are not meant to be mutually exclusive; the barriers (or conversely enablers) interact with one another to influence students' strategies towards completion and completion itself.

2.5.1 Personal factors

Personal barriers are at the micro level of a student's academic journey towards completion. These personal barriers are categorised firstly as bio-social factors such as age/maturity and marital factors/family responsibility, secondly as psychological factors that generate certain personal behaviours such as motivation, persistence, determination, academic self-esteem, and thirdly, in more general terms, as a student's personal qualities that either inhibit or facilitate academic success.

2.5.1.1 Bio-social factors

It is noted that bio-social factors such as age, maturity and family responsibility are categorised as personal factors that impact on completion. With respect to the age of doctoral students, the point of entry into doctoral studies is typically between 24 and 27 years in Australia and the US; in South Africa doctoral students are generally of a mature age, with the average age ranging from the mid-30s to the mid-40s with most of the doctoral students being married (Cloete et al., 2015). Given the average age, most of the South African doctoral students are studying while shouldering several responsibilities, especially family and workplace responsibilities (Herman, 2010).

Offerman (2011) notes that maturity plays a major role in student academic completion and success. Generally, the term maturity refers to the changes and development in the brain structure and the rest of the human body; it is a measure of using good judgement, understanding cause and effect, and the ability to associate what one is doing with the result of such actions later.

Correspondingly, Steinberg and Cauffman (1996: 250) assert that immaturity in individuals can be attributed to cognitive and psychosocial differences that 'are assumed to reflect in competence due to differences in developmental status (independent of experience) and differences in experience (independent of developmental status) or some combination of both'. This suggests that maturity influences the competences of the individual. However, more mature individuals typically exhibit higher levels of responsibility, perspective and temperance, and display mature decision-making regardless of age (Cauffman & Steinberg, 2000). In other words, maturity informs a person's ability to accept responsibilities for one's own thoughts, feelings, and behaviours and keep track of one's thinking and control various emotions that may be experienced in a learning situation.

Investigating the implications of age and maturity on the doctoral process and completion, Offerman (2011) argues that age and maturity influence several other variables in the doctoral study process. In terms of students' social life, many are married and have children, and they are less likely to study full time as they have an established work life and existing careers and full-time jobs. This requires that mature doctoral students must balance their studies with family and career; they require different kinds of support services from institutions, and may have to balance competing demands between financial needs and academic needs (Offerman, 2011; also see Herman, 2011b). Consequently, the balancing act may be a way of managing competing demands that involve barriers to completion from different perspectives. Kuh et al. (2006) assert that some students are better prepared socially, culturally and academically than others and have greater confidence in their ability to succeed because of the existing individual differences in their life experiences, background and their academic trajectory, having completed first and second degrees at different points in time. By comparison, more mature students are mostly more committed to achieve completion as they consider the opportunity cost of participation as compared to students who started their academic career at the statutory age and studied consistently without taking time off to work full-time. Burger (2017) asserts that the academic success of students within the South African context is influenced by several pre- and post-enrolment factors in combination rather than by factors such as maturity/age in isolation. In other words, maturity/age alone may not account for academic success and completion.

2.5.1.2. Balancing work, family life and studies

Generally, motivated students design effective and intentional ways to enhance successful completion of an academic program (Linnenbrink & Pintrich, 2002), especially as adult students who juggle academics, family responsibility and work and social life (Zimmerman & Schunk,

2004). According to Offerman (2011) one of the elements common to doctoral students is that most of them are married and many of them have children that may be constraining them to attain completion. This suggests that the issue of managing the home and studying at the same time could be a source of distraction and a barrier to completion. Maher, Ford, and Thompson, (2004) further find that doctoral students encounter challenges such as marital discord that may result in considerable distraction and thus significant detrimental effects on the doctoral student's academic success.

Furthermore, students' age and marital status indicate their involvement with social and family responsibilities as married adults (Herman, 2011b). Martinez, Ordu, Della Sala and McFarlane (2013) found that full-time doctoral students struggle to balance the pressure from both their families and workplace, which influences their studies. Agreeing with Offerman (2011), Spaulding and Rockinson-Szapkiw (2012) argue that a typical doctoral student works full time and often at senior staff level which puts them under pressure due to the academic demand of doctoral study. The pressure and commitments result in further challenges such as time constraints in the case of poor time management (Smith, Maroney, Nelson, Abel, & Abel, 2006; Jimenez, 2011), which could impact on the achievement of academic success. Scholars claim that factors such as the time needed to complete, and spending time away from family can lead to guilt, worry and anxiety, which can further raise stress levels that prolongs the completion of the thesis (Smith et al., 2006). The need to balance family responsibility, work responsibility and studies may thus further generate psychological barriers to completion (such as anxiety).

On the contrary, Wright and Cochrane (2000) found that mature and part-time students were more likely to complete their studies, because their work is well planned, organised and independently carried out, irrespective of their gender. However, other studies show that marital factors impede more on women's academic attainment than men's. For instance, Maher et al. (2004) note that women are most often distracted from their academic endeavours by maternal responsibilities and the emotional toll of life events such as birth, death or divorce. Emotional support from family members is therefore considered as critical to those who encounter challenges in the doctoral process, 'providing them with the encouragement needed to persist and succeed' (Maher et al., 2004: 388).

The next set of personal factors considered in the literature could be called 'psychological' factors. They include barriers to completion such as motivation, perseverance/persistence, academic self-esteem and personal adjustment as expressed in students' experiences.

2.5.1.3 Motivation

One key factor for academic success is motivation. Several studies have emphasised psychological factors influence such as motivation on students' efforts to attain completion of doctoral degree (e.g. Walker, Golde, Jones, Bueschel & Hutchings, 2008; de Valero, 2001). Motivation can be defined as 'the reason why somebody does something or behaves in a particular way' or 'the feeling of wanting to do something' (*Oxford Advanced Learner's Dictionary*, 2018). Siebert (2005) views motivation as a sense of personal success which influences the achievement of goals that an individual set for him/herself and not those imposed by others. In other words, motivation is intrinsic and facilitated by an intrinsic factor. Cardona (2013) reports that intrinsic and extrinsic factors impact on students' academic motivation as well as create autonomous motivation that sustains participation in the doctoral programme until the attainment of completion. Petersen, Louw and Dumont (2009) reiterate that academic achievement is directly proportional to academic motivation and reflects on educational outcomes in different ways. In an academic environment, motivation enables the student to be committed to the process and procedures of an academic programme. However, Cardona (2013) notes that students' motivation to complete a doctoral programme was challenged by their personal and academic needs, the academic environment, career and academic support, and the nature of doctoral work, particularly the unstructured process of completing a thesis. This suggests that extrinsic factors impact greatly on students' motivation, implying the need for intrinsic academic motivation.

Correspondingly, McCollum and Kajs (2007) assert that without motivation very little learning and performance can be achieved. The absence of motivation could also be an indication of low self-esteem. Portnoi (2009) identifies other challenges such as feelings of low self-esteem among some students. This affects the intrinsic motivation of students. Thus, motivation may need to be both a pre-existing trait and one that is instilled by one's living environment, social network and a nurturing academic environment. In other words, without motivation students may not persevere in the face of difficulties to attain academic success. Students' lack of motivation, self-discipline and commitment can have a significant influence on their academic success and completion (Steenkamp, Baard & Frick, 2009). Furthermore, Amini, Dehghani, Kojuri, Mahbudi, Bazrafkan, Saher and Ardekanri (2008) highlighted motivation in the context of other personal traits: personal abilities, attitudes, beliefs, effort and persistence. This implies that lack of such positive intrinsic traits, particularly motivation, can be a personal barrier to the attainment of academic success. Some of these traits are further discussed below.

2.5.1.4 Persistence and resilience

In terms of personal barriers experienced by doctoral students, lack of motivation links with the absence of persistence. As indicated in simple dictionary definitions, persistence can refer to both ‘the fact of continuing to try to do something despite difficulties’ or ‘the state of continuing [...] for a long period’ (*Oxford Advanced Learner’s Dictionary, 2018*). Persistence as a psychological attribute is part of the individual’s mind-set as internalised over time, and as such it affects completion; this is what is implied in the first definition whereby to be persistent means to refuse to give up in the face of challenges. Most of the higher education literature uses the term ‘persistence’ rather than ‘resilience’. Lovitts, for example, (2001) uses the term ‘persistence’ in relation to retention and attrition, arguing that persistence as demonstrated by doctoral students is evident in continuous yearly enrolment and is thus an indication of success. Thus ‘students’ individual reasons for persistence (or non-persistence) need to be assessed against the social context from which they are proffered’ (Lovitts, 2001: 263).

Besides persistence, resilience is also an important factor in the retention and attainment of completion. Morales (2008) maintains that academic resilience is the ability to achieve success in an educational setting, despite exposure to risk factors. In other words, an inability to be resilient is a barrier to completion which is evident when students drop out of the programme. Cavazos and Cavazos (2010), Zalaquett and Feliciano (2004) opine that the need for educational institutions to help students to develop resilience cannot be overemphasised. However, helping students develop resilience is still an unknown process as there still exists a scarcity of studies on how students’ personal motivation, persistence and resilience are developed from the family background, especially among African students at doctoral level.

2.5.1.5 Academic self-esteem and personal adjustment

Another psychological factor that affects completion of doctoral study is academic self-esteem, which may be defined as the way a student perceives his/her own ability to be successful. Pajares and Schunk (2001) note that believing in one’s ability and capacity to perform and being excited about learning as a student could inform academic success. Self-esteem can also be boosted by supervisory support facilitating transformational changes from being a novice researcher to becoming an independent researcher (Gardner, 2008). Thus, the academic self-esteem of students is influenced by different factors that impact both positively and negatively on students’ academic success. Low academic self-esteem can be due to poor educational backgrounds, uncomfortable events in life, poor self-efficacy and poor student-supervisor relationships, all of which lead to a

drop in students' motivation (Bitzer, 2007; Ahern & Manathunga, 2004). In addition, academic challenges as a result of prior education, such as poor writing skills and poor research skills, leading to frequently low evaluation from the supervisor, as well as lack of effective time management may contribute to low academic self-esteem (Mouton, 2001), which becomes a barrier to completion.

Contrarily, Zimmerman (2002) notes that students use adaptive responses such as self-regulatory processes to facilitate their learning experiences to achieve academic success; these include being proactive, and applying their thoughts, feelings and behaviours to attain set goals. These students manage to align their goals and behaviour to effective ways of increasing the actualisation of set goals. Zimmerman (2002) notes that students apply personal initiative and adoptive skills to activate, alter and sustain specific learning practices, as well as other problem-solving ways such as seeking help from others to improve their learning. Thus, adjustment and problem-solving attributes are found to be essential factors necessary for life-long learning that can influence completion (Zimmerman, 2002). Consequently, the ability to adjust and adopt a problem-solving attitude could remedy the issue of low self-esteem.

2.5.1.6 Personal qualities

In understanding the influence of psychological factors on academic achievement, the qualities of a person's character, either acting as a facilitator or as a barrier to completion, are explored under personal factors. Spaulding and Rockinson-Szapkiw (2012) argue that personal factors such as personal qualities are considered as the general attitude of an individual to life, including the negative or positive way an individual views the world, as determined by the inner values of the individual. Students' responses regarding perceived barriers in an academic programme are relatively the same at all levels of learning, from the undergraduate programme to the postgraduate programme, with an exception in doctoral studies. A different disposition is demanded at doctoral level of study where personal qualities of autonomy and the independent pursuance of a research topic are required (Philip & Pugh, 2010). Earl-Novell (2006) notes that at the doctoral level, taking ownership of the thesis by the student is important, requiring individual attributes such as independent thought and creativity. As a result, students are expected at this level to make a shift in their disposition to fit in with the expectations in their academic experience, due to variations in circumstances surrounding their learning experiences (Bourdieu, 1977) in their educational trajectory that could influence their academic success at doctoral level as well. Not all students are able to make the needed shift in disposition as demanded by the rigour in doctoral study, resulting in a struggle to attain completion. Lovitts (2008:319) has shown that some students are often not

able to make the ‘transition to independent research and the failure to complete a dissertation at all (non-completers)’. Thus, they fail to become independent scholars.

2.5.2 Socio-cultural factors

Socio-cultural factors consider familial background, social status and cultural background as factors that influence completion.

2.5.2.1 Family background

Family in the context of this study does not refer merely to the Western ‘nuclear family’ notion; rather it can vary by marriage type. In the African context, marriage is either monogamous or polygamous whereby the relationship to extended family members can be considered like it occurs in a nuclear family structure. Given that society is a product of a wider belief system to which the family belongs, Igboin (2011) argues that in Africa, the value of the family is considered as a primary unit of the community. In other words, society is a product of the family from which several factors such as the family socio-economic background, the cultural practices of the family and the form of family support available to students influence the academic achievement of students (Mushtaq, 2012). Thus, barriers deriving from the family context vary according to several characteristics in the family background of the student, which can impact on academic achievement from childhood and inform later experiences in adulthood of the students (Bourdieu, 1977).

Familial factors such as the level of education of family members, the social status of the family and sibling influence act as facilitators or barriers to completion. While these factors may impact on the academic performance of the individual from childhood, their impact may shift positively or negatively as the individual grows up and encounters other environments, such as educational institutions.

The level of education of family members in the environment in which a student grew up exercises a significant influence on the academic performance of a student. For example, Gardner (2013) examines the challenges of first-generation doctoral students and found that these students faced challenges such as lack of research-related and teaching competences to enhance professional development when opportunities exist. In other words, first-generation higher education students tend to lack certain skills, attitudes and knowledge that others benefitted from due to their family background (Gardner, 2013). Thus, a student from a first-generation background will access doctoral study relying more heavily on knowledge (as well as attitudes and skills) acquired from

the previous postgraduate programme. Thus, the family educational background imparts pre-determined attributes and capabilities to the student (Sanchez Montesinos, & Rodriguez, 2013). It should be noted that the influence of the level of education of members of the family such as siblings could be impactful where the parents' level of education is less influential. McHale, Updegraff and Whiteman (2012) note that siblings often function as building blocks and key players in the family dynamics; their influence could therefore be impactful on the academic achievement of doctoral students (Pajoluk, 2013). Generally, a low level of family education associated with working-class families could cause a student to struggle to achieve at a high academic level due to challenges of inadequate resources, poor educational support and the lack of an enabling learning environment (De Villiers, 1997; Ngidi & Qwabe, 2006).

2.5.2.2 Social class, status and network

The concepts of social (or socio-economic) status and social class are frequently used interchangeably. Kohn (2013) defines a social class as an aggregate of individuals who occupy similar positions in terms of a social hierarchy of power, privilege and prestige, as well as education level and occupational position. Frequently the distinction is between working-class, middle-class and upper class. One's level of income (and wealth), level of education, the neighbourhood one lives in, and the quality of personal belongings determine social status in most societies. Scott (2002), for example, regards social class variables to include social resources, educational attainment and aspirations. Thus, the level of income, occupation, and educational levels are key factors considered as potential facilitators or barriers to doctoral study completion, associated with socio-economic status. Kohn (2013) notes that an individual or family's social status determines a student's attitude towards academic work, and this attitude is a product of the family's value system, lifestyle and the way their children are raised. Thus, students from low socio-economic status families (i.e. poor and working-class families) tend to struggle to achieve (academic) goals that they have set for themselves as they lack the cohesive social network of a peer who is from a well-educated, middle or upper-class family background (Jairam & Kahl, 2012).

Studies of non-traditional students and under-represented populations have identified external factors such as parental encouragement, support of friends, and finances as affecting student persistence (Braxton, Hirschy & McClendon 2004; Swail, Cabrera, Lee & Williams, 2005), which influences academic achievement and completion.

Financial problems and work commitments, informed by social class and status, have also been found to be among the main obstacles to timely completion among South African doctoral students (Herman, 2011a: 45).

2.5.2.3 Cultural background

Apart from socio-economic status, people are the products of the socio-historical and cultural contexts of their times (Merriam & Caffarella, 1999). Culture may be defined as ‘the customs and beliefs, art, way of life and social organization of a particular country or group’ (*Oxford Advanced Learner’s Dictionary, 2018*). Individuals cannot be separated from their culture; even though the individual’s worldview rooted in the prevailing culture influences his/her own interpretation of the culture, and in this respect, such individual remains an embodiment of the collective cultural code (Bear, 2000). The double effect of culture on the individual, both as a liberating and constraining factor, plays itself out in everyday life (Kramsch, 1998), even in academic life.

The culture of a group of people or family is premised on home language, customs, cultural beliefs, values and practices (as indicated above), and in this respect influence the academic achievement of the student (Burgess, Crocombe, Kelly & Seet, 2009), even at doctoral level as some literature shows. Dilworth-Anderson and Gibson (2002) indicate that people who are socialised within the context of a certain belief system would obviously be influenced by and be carriers of certain norms and values that are associated with that belief system. This suggests that doctoral students within a certain peer group reflect the influences of the values, norms, beliefs and practices of such a group (Johnson, 2000).

a) Family cultural background

At the family level, the family cultural beliefs, values and practices are transferred from generation to generation through interaction within the family setting. Sørensen, Iversenb, Froma and Bonesrønning (2015) emphasise a natural parental tendency to raise and motivate their children according to cultural beliefs, values and practices, even when these become inefficient or irrelevant. Consequently, children learn certain qualities at home (Cunha, & Heckman 2007), either before or while schooling according to the family cultural background.

The review of literature indicates that family background has a great influence on students’ academic achievement. Scholars argue that parental expectations of students’ academic achievement vary and determine the level of their success (Pearce, 2006; Vartanian, Karen, Buck

& Cadge, 2007). Thus, in families where education does not receive the best of attention or children are not expected to demonstrate a relatively high level of academic competence, their academic achievement is hampered due to the transmission of such attitudes (Pearce, 2006).

Family beliefs and values for education become a norm for family members, though there can be exceptions. However, such belief system and value influence individual family members in the way and level to which they participate in education and the kind and level of family support they get. In other words, thus a lack of family support for doctoral students becomes challenging, especially when the family beliefs and attitudes to education do not support studying at doctoral level. Conversely, a family background that involves a high sense of appreciation of education provides a source of encouragement and support for family members to pursue academic achievement (Brecko, 2004; Bruzzese, 2011; Egalite, 2016), also at doctoral level.

b) Cultural and language difference between home and institution

Differences between the home culture and the institutional culture of a university can also be a source of challenge to doctoral students as literature on students' experiences beyond the curriculum in South African higher education shows (Kerr & Luescher, 2018). Similarly, divergence between the family setting and the academic setting of the language used for communication accounts for communication challenges and academic writing challenges. According to Crystal (2003), students whose first language is not English struggle to manage an English medium of instruction class as compared to students who are English first language speakers (also see Herman, 2011a). Students from English-speaking backgrounds who have English as their first language, or are fluent in English, are more easily able to think in an English language academic context, work more quickly in it, and can more easily manipulate it to their own advantage at the expense of those who do not have that advantage. The fact that language is a tool for meaning making (Vygotsky, 1980), along with its role as a means of communication through which individuals express their feelings, thoughts and needs, makes the need to communicate proficiently in the English language very important (Choudhury, 2014), even more so in certain disciplines than others. Therefore, they become challenged in their linguistic ability to comprehend and present facts in writing, especially in academic writing. Trice (2003) argues that language skills are essential, because students are required to make presentations, work in groups and interact regularly with faculty members. Language challenges are also related to other challenges, such as isolation and segregation (Trice, 2003), as well as poor participation in a research forum and improper functioning in research groups. Thus, an inability to function effectively in English can hinder the achievement of academic success, even at a doctoral level of

education (Trice, 2003). Amelink (2005), Hagy and Staniec (2002) consider the lack of proficiency in English as being a major challenge and contributor to low academic achievement of students. These authors reveal that the mismatch between the language used at educational institutions and at home creates a major upheaval for some students. They must change languages (thus creating a double consciousness) and need to adapt to different settings, at home and on campus.

Language difficulties are reported as one of the main obstacles to timely completion of doctoral study in South Africa (Herman, 2011a: 45). According to Moon (2007) and Knopf (2006), academic activities such as research, which involves reading, comprehending and writing, contribute to students' academic success at doctoral level. In other words, lack of language competencies in these aspects of communication, especially writing skills, constitute a barrier for the attainment of academic success of doctoral students (Ismail & Meerah, 2012; Dunleavy, 2003).

Cultural differences between ethnic and racial groups and nationalities can also be barriers to completion. Brace (2011) emphasises that, culturally, African Americans were historically limited to only basic education and, in terms of gendered cultural beliefs and values, women could only get to the level of being educated in the domestic arts like dancing, music or language. Brace further notes that working-class women were not considered for higher levels of education or engagement in academic activities. Cultural background may thus be an important factor when seeking to strive to attain academic success at all levels of education, including doctoral study. Correspondingly, Harris and Marsh (2010) argue that the lower educational achievement of blacks is due to a cultural break between black families' culture and the institutionalised culture of educational institutions, which value the cultural norms of 'mainstream' white middle-class society. This factor accounts for black students' underachievement relative to whites, especially among the working-class African Americans. It contributes to further widening the achievement gap as African American students are three times as likely to drop out of school, compared to their white counterparts (Brace, 2011). Therefore, as noted by various scholars, cultural background, language, and differences between family and institutional culture appear as barriers to academic success, particularly for black students in some institutional contexts. With respect to South African higher education, Higgins (2007:116) argues that the core problem affecting black students' experiences of higher education was 'the reality of the uneven distribution of cultural capital'. In the context of the reviewed studies from other contexts, it is not an 'uneven distribution' but rather an 'uneven valuing' or an institutionalised incongruity, whereby institutional cultures steeped in one culture are unable to adapt to and accommodate the cultural resources (such as language) and related needs that, for example, African doctoral students bring

to an educational institution. Institutional culture as an aspect of the student experience and potential barrier to completion is further discussed in the review of institutional factors below.

c) Learned cultural competence factor

A point related to matters of cultural differences is made by Brace (2011) and Ladson-Billings (2001) who note that a lack of cultural competence on the part of an educational guide such as teachers or supervisors is a barrier to academic success. It has been argued that students from a different ethnic or racial group or nationality experience challenges in the attainment of academic success due to the incompetence of the teacher in the use of culturally relevant teaching/pedagogies to make learning and teaching effective (Brace, 2011), or a lack of interest of supervisors due to cultural differences (Herman, 2011). Thus, a situation where a doctoral study supervisor fails to acknowledge the cultural differences among students may result in a poor student-supervisor relationship (Hofstede, 2001; also see Herman, 2011b). Brace (2011) reports that the lack of cultural competence of teachers can impact on the way students and teachers, interact, use language, communicate, and view authority. This suggests that a teacher who is culturally competent can influence the academic success of students, especially as individual students cannot separate themselves from their communities and culture. In other words, the ability of an individual to work effectively in a diverse, multi-cultural learning environment is an asset for the achievement of academic success.

2.5.3 Contextual factors

Context may be defined simply as ‘the situation in which something happens and that helps you to understand it’ (*Oxford Advanced Learner’s Dictionary, 2018*). In this study, it is used to refer to all the factors influencing doctoral study. Some scholars have claimed that the social context in this case, the university and its immediate society, is one of the main factors determining the academic success or failure of students (Samaniego-Sánchez, Sánchez González, Aparicio, Nebot, Aranda, López-Jurado, & Llopis, 2011), as it could pose a diversity of challenges for students. Context-based challenges are numerous, and they range from the doctoral study process and procedure to challenges at departmental, faculty, and institutional level. Some of the challenges of doctoral programmes include ‘unclear expectations, a proliferation of courses, elaborate and sometimes conflicting requirements, intermittent supervision, epistemological disagreements on fundamentals and not least, inadequate funding’ (Ehrenberg, Zuckerman, Groen, & Brucker, 2006, n.p.).

Moreover, the institution is considered as a social space within which the students carry out their research activities and which functions as another home for them. Students may experience this space as supportive to functioning maximally so as to attain academic achievement, or, conversely, students may experience various aspects of this space as constraining and presenting barriers to completion. Under this broad heading, other factors such as the nature of the doctoral programme, research environment, the research project, research support, relationship with the supervisor, the supervision process, funding, peer influence, and the institutional culture and practices are discussed to provide clarity regarding students' second home of research activities. Several related characteristics and variations have been discussed earlier in this chapter in terms of the structure and process of doctoral study, including models of supervision, as well as specific challenges such as funding. Some specific factors noted in the literature that may act as barriers to completion are highlighted in this section.

2.5.3.1 Nature of doctoral programme

The structure of doctoral programmes, the nature of the doctoral study, and supervision models were discussed in sections 2.2 and 2.3. Overall, a doctoral programme is typically not a 'linear' experience from start to finish, but often involves many iterations, and this can vary with the institution's research culture, choice of supervision model and style, and discipline. Consequently, non-completion (or attrition) is a complex matter and involves various factors as shown in studies such as Herman's (2011a) in the South African context or Pyhältö et al. (2012) with reference to Finnish doctoral study.

As previously noted, Herman's seminal study shows that students attribute non-timely completion to a variety of factors, of which the most frequent is 'academic challenges'. Other factors to which students attribute non-completion that are directly related to the doctoral programme and institution include 'communication with academics', 'quality of supervision', 'limited access to facilities' and 'administrative support' (Herman, 2011a: 45). As discussed above, Pyhältö et al. (2012) report problems that students encounter during their doctoral journey and found that the most common barriers encountered by Finnish doctoral students from all faculties are related to general work processes, academic practices relevant for the acquisition academic expertise, as well as barriers in relation to self-regulation, motivation and self-efficacy. In examining the nature of challenges students encounter, Gardner (2005) describes the doctoral education guidelines and expectations surrounding much of the students' experiences as full of ambiguity. This may produce what Golde (2005) describes as the 'mismatch' between students' expectations and their experiences in a particular programme. Expanding on that, Gardner (2005) found that a lack of

cognitive map and programme handbooks to guide students contributed to their struggle to attain completion as they spent a longer time to complete their studies. Thus, a lack of such basic resources and poor information can make attainment of completion challenging. Similarly, Abiddin and Ismail (2011) report that poor information and resources affect the attrition and completion of postgraduate studies, particularly doctoral study. Consequently, the explicit nature of the doctoral programme can contribute to student's academic success. Lovitts (2007) argues that making the implicit explicit – the phases and parts of the doctoral programme – could be helpful to all students. In other words, the absence of basic relevant information and transparency regarding established formal norms and rules causes doctoral students to be uninformed and ill-informed and impedes their completion (Hawley, 2010).

More specifically, Appel and Dahlgren (2003) provide a picture of how doctoral students experience their academic environment that facilitates or inhibits completion, with one such experience being the induction experience. Their study found that students expressed dissatisfaction with their induction experience as they had to obtain required information by themselves due to the failure of their departments to provide such (also see Gardner, 2005, above). Other doctoral students played a key role in introducing them to their departments. Similar findings are reported in other studies (Gardner, 2008; 2000; Morton & Thornley, 2001). Insecurity about the 'unwritten rules' of academia is one of three kinds of insecurity that doctoral students typically face in general, and within their department, in particular, may make students feel that 'there were unexpressed conflicts and unwritten rules with which they were unacquainted' (Appel & Dahlgren, 2003: 108). Students generally emphasised the importance of proper socialisation into the department in which they are based (Jazvac-Martek, 2009; Gardner, 2008).

2.5.3.2 Research environment

Viewing the institutional context from another perspective, Pitchforth, Beames, Thomas, Falk, Farr, Gasson and Mengersen (2012) point out that the research environment, the research project and personal aspects are factors that directly influence completion of study. These factors, along with other factors, impact both positively and negatively on completion. With reference to the South African context of doctoral study, Herman (2011a: 48) found that among the research environment-related challenges facing doctoral students were 'difficulties of conducting the research due to a lack of access to equipment and expertise' as well as 'inaccessible facilities and resources, such as faulty equipment and unavailability of library materials or publications, internet time, computer, working space and telephones'. Herman related this to challenges of funding experienced by institutions as well as by students themselves.

2.5.3.3 Lack of collaborative research support

Furthermore, challenges in doctoral programmes become obvious where there is lack of support, which can be in several forms. For doctoral students, this support could be institutional or academic (Portnoi, 2009), social and economic. Institutional support for doctoral students' research means support for producing quality research, which is vital. Research support can be defined as any resource that is provided to enhance engagement in scholarship (Freedenthal, Potter, & Grinstein-Weiss, 2008). Freedenthal et.al. (2008: 221) views research support by the institution as including three main areas: 'time to pursue the scholarship, funding to pursue the scholarship, and technical expertise, assistance, and training'. However, this support, especially in African universities is absent, which poses serious challenges to students (Teferra, & Altbach, 2004).

At the institutional level, particularly the department where students have closer interaction with the institution, research support could be through team research. Maestas, Vaquera and Zehr (2007) assert that doctoral students in departments that have a team-oriented approach experience a closer working relationship with faculty that facilitates completion of their research projects. Such a team approach is more common in the sciences where doctoral students work with faculty in collaboration with industries, communities and organisations towards a professional doctorate. Conversely, departments within the humanities and social sciences that encourage students to work independently using the AMM of graduate supervision have more students experiencing a lack of completion.

2.5.3.4 Supervisor and supervision process

The issue of collaborative research support or team research is also related to the supervision relationship and supervision process, which involves key factors and major means of rendering technical expertise and support to students (Ngcongco, 2001; Martinsuo & Turkulainen, 2011). Supervisors play multiple roles, some of which have been mentioned above (see section 2.3.2); they include being 'a manager, leader and mentor' (Wisker, Robinson, Trafford, Warnes & Creighton, 2003: 388), 'to guide, advise, ensure scientific quality and provide emotional support' (Mouton, 2001: 17) and be a coach and co-learner (Lessing & Schulze, 2002). This positions the supervisor as a technical expert that unhooks the student from entanglements that seem to forestall completion as well as a senior colleague with roles bordering on pastoral care. According to Lessing and Schulze (2002) technical expertise and assistance which can only be given by the supervisor constitute a crucial kind of research support to facilitating doctoral students' completion

of study. Other scholars have also stressed that the success rate in graduate research studies is strongly dependent on the input of the supervisor and the quality of supervision (Abiddin & Ismail, 2011). In other words, the supervisor and supervision process influence doctoral study from inception to the end. However, in South Africa, supervision has been found to be one of the obstacles to timely completion by 20% of the participants in a study conducted (Herman, 2011a: 49).

One such barrier that relates to the supervisor and supervision is the lack of experienced supervisors, which results in a challenging supervision process. Lessing and Lessing (2004) point out that seasoned supervisors offer satisfactory guidance to students, which is uncommon with less experienced supervisors in the field as they could be unaware of pitfalls in the supervisory system. The experienced supervisors provide much needed institutional and departmental support to train students in scientific formulation and writing. In other words, the supervisor guides, advises and ensures that the doctoral students' conducting of the research meets the scientific quality that is expected, and writes a high-quality thesis, which process requires emotional support (Mouton, 2001). Reiterating the need for experienced supervisors, Zhao, Golde, and McCormick (2007) note that good supervisors take a personal interest in the student and the research project, promote the student's career actively as well as the student's socialisation into the broader academic and research community, by encouraging their autonomy (Petersen 2007; Johnson, Lee & Green, 2000), promoting the student's identity development as a researcher, and setting a good example as scholars (Hockey & Allen-Collinson 2005). The lack of quality supervision may therefore cause a student to struggle to attain completion.

Writing from the South African context, Cloete et al. (2015) acknowledge that there is a low number of available academic staff in South Africa overall to provide quality supervision at doctoral level, which has a negative influence on both doctoral candidates and attracting potential students (and on the workload of supervisors). This challenge does not only inhibit completion but also causes unduly longer duration of study resulting in additional family and financial implications for the student that may become barriers to completion. Herman (2011: 49), who found that about one in five students attribute a lack of timely completion to supervision, notes that several students in the sample study argued that

'their supervisors seemed to be overloaded with teaching or with the number of students they supervised. Quite a number of students claimed that the time it took to get feedback from supervisors had severely delayed their progress' (Herman, 2011a: 49).

Lack of qualified faculty as supervisors to match the number of supervisees may result in mismatching the expertise and personality type of the supervisor with the doctoral student, whereby the choice of supervisor accounts for the majority of the challenges stemming from poor supervision and a problematic supervisory relationship (Ali, Kohun & Levy, 2007; Grover & Malhorta, 2003; also see Herman, 2011a). Unattended poor supervisor-student relationships result in challenges in the doctoral journey, especially the writing of the thesis, leaving the student with limited options to remedy the situation (Ali et al., 2007). Furthermore, an uneven racial spread of supervision capacity also affects the supervision process, highlighting the need to boost supervision capacity along racial groupings. For example, Herman (2011a: 49) found that ‘in some cases, students related a lack of attention or interest to insensitivity to cultural differences’. In this connection, Herman quotes a student saying that ‘most supervisors are not African in their philosophical grounding and they know (or want to know) very little about the culture and languages of the majority of their charges’ (Herman, 2011a: 49).

Studies have shown that barriers in the supervisory system can also arise from the quality and ability of the students. Scholars argue that in the supervisory system, the supervisor and the student are two very important players that inform the successful completion of a thesis as a high-quality product because brightness, dedication, intelligence and training of the student reflects the ability of the supervisor and effective supervision (Hockey 1994; Smith, Brownell, Simpson & Deshler, 1993). Yet, an experienced supervisor and an effective supervisory system can be constrained by the quality of students admitted into the doctoral programme, especially with regards to personal and socio-cultural barriers of the student as discussed previously, which in some cases are perceived as being ignored by supervisors. Generally, the main purpose of doctoral education is to equip students with the ability to engage in creative, intellectual inquiry independently (Lovitts, 2001; Leonard, et al., 2005). Lovitts (2001: 296) notes that it is difficult to ascertain which students can transit ‘from course-taker to independent scholar/researcher’ using previous academic records. Completion of doctoral study goes beyond being academically intelligent (Hawley, 2010); it also requires other attributes such as being creative, having the appropriate social resources and domain-relevant skills, being task motivated, and demonstrating high-level abilities such as abstract reasoning, the ability to learn and adapt to meet the demands of the environment (Amabile, 2012; Lovitts, 2005; Sternberg, 1997; Sternberg & Lubart 1995), as shown throughout this chapter.

Lessing and Schulze (2002) further point out that some supervisors erroneously treat the doctoral student as an independent researcher, who takes initiative in proposing and executing the research. This can mean that the style of supervision may be putting the student on an uphill task as a novice

researcher with little or no assistance or guidance, which could result in the student struggling to attain completion and even lead to total failure (Delamont, Parry & Atkinson, 1998). Finally, it has been found that systems for the allocation of students to supervisors, the quality of supervision and the frequency of feedback also affect the supervision relationship (Mouton 2001).

2.5.3.5 Peer influence

Johnson (2000) points out that student peer groups influence the academic achievement of students positively as they provide a forum to socialise students through collegial interaction over a long time, imbibe acceptable social customs, and encourage healthy competition amongst themselves to become achievers. Peer influence is therefore valuable, the more so since stress, isolation and a lack of motivation can be barriers that contribute to non-completion, especially in the first year of a doctoral programme (Jairam & Kahl Jr, 2012; Holmes, Robinson & Seay, 2010). Many doctoral students enter doctoral study ‘empty-handed’, without experience and foreknowledge of what to expect and what to do, while some have only limited ideas about what is involved in the programme, both academically and socially (Hawley, 2010; Ali, Kohun & Levy, 2007). As a result, they fall into the trap of isolation created by the perceived idea that doctoral study is an individual journey, and fail to recognise the common features in the programme. According to Herman (2011a: 42), Portnoi (2009) argues that ‘the lack of a systematic induction into postgraduate studies, feelings of solitude, a lack of a supportive community, and the students’ experience of “flying solo” are among the reasons for attrition of doctoral students’ and thus not attaining completion. Reiterating this, other scholars’ found that ‘successful doctoral students appeared to share a common set of experiences that kept them on time and on task’ (Holmes et al., 2010: 1) and that ‘students working in cooperation generally tend to produce higher achievement than students working alone’ (Holmes et al., 2010: 2; also see Johnson & Johnson, 1998).

Research has revealed that the development of social relationships between students within a doctoral programme facilitates attainment of academic success (Gardner, 2010). Conversely, the absence of a sense of community or ‘sense of belonging to a doctoral programme’ also has an effect of isolating students (Lawson & Fuehrer, 2001: 287). Thus, Lovitts (2001) emphasises that a programme which encourages students to unite and assimilate facilitates retention. A doctoral programme that is characterised by well-developed social relationships where students learn from one another provides a cooperative and supportive environment, resistance to challenges in the journey to completion, and a space to critically engage with ideas and work that could save many hours of extra work (Grover, 2007).

Ali and Kohun (2006), in a study conducted in Western Pennsylvania, buttress this point as they emphasise the need for the university to organise programmes for doctoral students and offer various social setting for students to talk about study topics and other common issues. Such a forum provides peer influence that can support and encourage students as they learn to adjust and apply lessons learnt in the forum. Holmes et al. (2010) argue that students should start dealing with the issue of isolation from their first year of doctoral programme for them to experience some sense of support and understanding in order to have a better success rate. Thus, both structured and less structured social interaction between fellow doctoral students implies that peer influence may offer support in various ways and reduce barriers to completion related to personal, socio-cultural and contextual factors.

2.5.3.6 Institutional culture and practices

The institutional culture and institutionalised practices in a university, faculty or department may become a barrier to completion for some students. In the South African context, institutional culture has been defined as ‘the prevailing ethos – the deep-rooted sets of norms, assumptions and values that predominate and pervade most of the environment on a day to day basis’ (Steyn & van Zyl, 2001: 9), or more specifically as a ‘keyword’ used in the critique of the ‘whiteness’ of academic culture, particularly in historically white universities. In this context and sense, institutional culture refers to norms, assumptions, values and related practices that are experienced as alienating and disempowering by black staff and students (Higgins, 2007).

While the emphasis in the South African context tends to be on ethnic and racial differences, in other contexts institutional culture has been used to refer to the way doctoral students are conceived by their host institutions (cf. Paulson et al., 2010). Paulson et al. (2010) argue that the way doctoral students are regarded by their host institutions varies considerably. In some European countries (e.g. in Scandinavia and the Netherlands), the doctoral student is regarded as an ‘employee’ and ‘junior staff member’ of the university with duties, rights and a regular salary (Golde & Dore, 2001:48). Increasingly, contractual relationships between the doctoral student and the institution or department are established to provide more transparency in terms of the requirements and obligations on both sides (Hawley, 2010). In the Anglo-Saxon model of higher education, this is typically not the case, for students are self-funded and independent, or on scholarships, and any teaching, research or similar assistantships are more ad hoc, such as in the case of UWC and its work-study programme (Mohlakoana, 2015). In the Anglo-Saxon model, which is also prevalent in South Africa, students from working-class backgrounds can experience a great deal of financial pressure that can amount to a struggle to achieve completion. The

institutional culture based on this model does not sufficiently support student funding. Thus, Herman (2011a) found that financial problems are one of the main obstacles students face to timely completion. Herman further found that financial problems of doctoral students had significant associations with race, whereby ‘more African students and fewer white student are expected to consider financial problems as an obstacle to completion’ (Herman, 2011a: 48).

2.5.3.7 Funding to pursue scholarship

The pursuit of scholarship is less challenging when funded. Lack of funds is not only a micro-level but also a meso and macro level factor in doctoral education. Globally, funding of doctoral study takes different forms at macro or national level.

In Africa, funding has plagued African universities for a long time. Teferra and Altbach (2004) argue that African universities function in very difficult circumstances, in terms of the social, economic, and political challenges facing the continent and in the context of globalisation. Overall, higher education institutions in sub-Saharan Africa have been plagued with institutional challenges such as a drastic reduction in donor funding (Hayward & Ncayiyana, 2014). However, departments within the institutions often give financial support to students.

Various studies have found financial assistance in the form of teaching assistantships funded by a department as a positive influence because it provides a direct student-faculty member link that increases a student’s connection with and integration into the department and thus may facilitate completion (Golde, 2005; Lovitts, 2001). Golde (2005) notes that financial opportunities such as research or teaching assistance that are not overly burdensome impact positively on completion. These opportunities could be challenging, however, if they get overwhelming for the student.

In South Africa, funding is a key matter in the process of doctoral education and students’ experience. Portnoi (2009) identifies a lack of funding as a challenge that hinders completion of an academic pursuit such as doctoral study. In South Africa, the NRF publicly funds doctoral study, which accounts for quite a large scale of doctoral funding sourced from the South African government. The universities, in turn, receive a subsidy from the DHET for various aspects of doctoral education: teaching input, teaching output (graduations), and accredited knowledge outputs (DHET, 2013).

The funding available to students (in terms of scholarships or work opportunities) varies in disciplines and universities. It contains an element of selectiveness because recipients must merit the funding. The national government sponsors doctoral study through the NRF, and some South

Africa doctoral students are fully NRF-funded, while students from other nationalities receive funding up to a specific level. Other bodies and organisations such as the German DAAD and Mellon Foundation also fund doctoral study in South Africa. In some universities, there are substantial institutional scholarships and grants available, as well as scholarships that are tied to certain research centres and research chairs. However, the availability of funding has not substantially increased the graduation rate (CHE, 2004).

Frequently, doctoral students in South Africa engage in paid academic work during their studies as teaching, library, laboratory or research assistants. Thus, the level of financial assistance can vary greatly due to lack of uniformity in terms of the number of working hours.² For example, UWC has established a work-study programme that engages students as tutors or teaching, research, library and laboratory assistants (Mohlakoana, 2015). There are also various kinds of financial aid or student credit that help students to eventually complete their studies, but they are then left with debt that they must pay back (Akers & Chingos, 2014; Dynarski, 2015). Generally, difficulty in research funding contributes in aiding the decline of doctoral students in research activities (Saint, Hartnett & Strassner, 2003; Bako, 2005). Herman's (2011a: 45) study identifies 'financial problems' as the second most frequently mentioned obstacle to timely completion of doctoral study in her large-scale survey of the experiences of South African Ph.D. students. A lack of funding therefore clearly presents a serious barrier to completion (see Portnoi, 2009). Given the severity of funding as a barrier to completion, there seems to be insufficient scholarly work paying attention to students' concerns and providing guidance on managing this crucial and persisting challenge to completing doctoral studies.

The final section of this chapter reviews literature on matters related to the strategies adopted to attain academic success, which is the focus of this study.

2.6 Completion strategies of doctoral study

A strategy may refer to 'a plan that is intended to achieve a particular purpose' or the act of 'putting a plan into operation in a skilful way' (*Oxford Advanced Learner's Dictionary, 2018*). According to Nickols (2011), a strategy may be bridge between high-order goals and concrete actions. These definitions imply that strategies are adopted with 'ends in view' and are meant to be operational. In this study, completion strategies in the context of doctoral study refer to practices, actions and

² See UWC Financial Aid Amendment Policy (2015) obtainable from UWC work-study office.

responses to attain completion, or specifically, to address barriers to completion. Strategies to attain doctoral study completion may be adopted at various levels – ranging from the macro level to the institutional and eventually individual level – to ensure academic success. While the core focus of this study is on individual students’ strategies and practices to attain completion of their doctoral study, it is nonetheless important to also consider what the existing literature says about strategies beyond the individual student.

2.6.1 Contextual strategies

At the institutional level, strategies are adopted within the doctoral progress to facilitate students’ completion. The scholarship of teaching and learning in higher education provides a fast-growing set of resources for adopting institutional best practices in this regard. At the general level, when seeking to ensure students’ academic success, the first principle of effective retention programmes, according to Tinto (1993: 146), is ‘institutional commitment to students, a commitment that springs from the very character of an institution’s educational mission’. It means that what an institution does regarding strategies to support the doctoral process in different ways contributes to the students’ attainment of completion. In a recent study in which Herman (2011c) seeks to understand the issue of inequality in the participation of the various population groups in Ph.D. studies in South Africa, she suggests some strategies that could be adopted to increase the participation and success of black South African doctoral students. These strategies include: ‘mobilising funding adequate to meet the particular circumstances of black South Africans; fixing the school system to create a larger pool of potential students; identifying promising students and providing them with mentorship and support from school to doctorate level; reducing the drop-out rate of those who eventually make it into higher education; and, most importantly, changing institutional culture’ (Herman, 2011c: 181). Some of these strategies, which may be relevant specifically to the experiences of African doctoral students who are already in the process of doctoral study, are considered in the following discussion, along with others identified from the literature. Since many of these strategies directly relate to the barriers reviewed above, the review here is not comprehensive but merely highlights several key strategies.

2.6.1.1 Provision of comprehensive information

In the doctoral process, the provision of comprehensive information regarding the doctoral programme cannot be overemphasised. Morton and Thornley (2000) found that students’ doctoral experiences could be improved by the provision of comprehensive information on departmental procedures and the research process, and with enhanced networking between students. Various

related arguments have been reviewed previously (see section 2.5.3.1). Additionally, academic departments that provide a clear structure for progress towards doctoral degree completion, define research expectations, and consistently evaluate student progress, tend to increase the probability of students' persistence and time-to-degree completion rates (Golde, 2005; Millet & Nettles, 2006). Other scholars further emphasise that to achieve such set goals, many institutions and departments have implemented some strategies in the form of programmes, ranging from improving targeted recruitment to establishing mentoring groups (Guadelope-Williams, 2005).

2.6.1.2 Mentorship as an institutional strategy

Instituting mentorship programmes for graduate students as a strategy in the research process has proved to have a positive impact on doctoral completion. Researchers have identified ways by which institutions, through the research process, have helped students to attain success and eventual completion of doctoral study. Hay (2008) and Hadingham (2010) consider the issue of supervision at doctoral level as vital and strategic in attaining completion through academic support in the research process. Consequently, the research supervisor is considered as a mentor in the supervision process whose role is to support and facilitate students' attainment of completion. Other scholars identify the need to provide encouragement and guidance to students, which again emphasises the issue of mentorship as a strategy to eliminate non-completion. Additionally, Contreras and Gandara (2006) report that the presence of Latina/o faculty mentors as an intervention can enhance student success. Matching students and supervisors/mentors, not only by expertise but also by culture, may be a strategy of addressing the barriers discussed above in relation to a mismatch of institutional culture and ethnic, racial and gender dynamics in apprentice-master supervision relationships, which barriers affect African students in particular. Overall, Preston Ogenchuk, and Nsiah, (2014) found that a mentor enhances the possibility of degree completion; mentoring has also been found a factor that increases students' production of research publications (Nettles & Millett, 2006).

2.6.1.3 Understanding participants' experiences and collaborative work

The need to understand students' experiences, especially through collaborative work, is gaining ground (see section 2.3.2.2). Considering students' experiences in the dissertation stage as primary, MacNamara (2003) notes the need for proactive institutional support of dissertation students and emphasises that student affairs administrators should expand and enhance their role of provision of services, programmes and resources such as the 'Jump Start Program' that assisted a cohort of doctoral students to complete their dissertation proposals. In other words, the faculty-

student relationship may be an important factor that forges the dissertation process. Furthermore, Dixon (2015) raises the need for university faculty and administrators to address human and institutional factors that could affect students' experiences and eventually the completion of doctoral study. The issue of human factor introduced here seems paramount in relation to the intrinsic aspect of the individual, and what the individual does. However, additional research is needed to understand the aspect of human factor, with a focus on students' strategies that can be enhanced through institutional assistance to doctoral students in the research process.

Furthermore, Holmes et al. (2010) reveal that students emphasised their proactive interdependence experiences, a product of working together in a collaborative cohort. This implies positive cohort experience, which is relevant to completion. Mullen (2005; 2008); Acosta, Duggins, Moore, Adams, and Johnson (2015) further assert that the ability of doctoral students to function interdependently facilitates positive relationships, critical skills development, and, where such promotive interaction occurs, it encourages and facilitates each other's efforts to reach the group's goals (cohort members) and results in academic success. In other words, students' perception of a sense of belonging to community of scholars facilitates completion. Thus, a doctoral programme characterised by a sense of community provides a cooperative and supportive environment that allows students to learn from one another (Gardner, 2005). In a survey, Lovitts (2001) reports that students who strongly connect with and fit into their academic communities are those that tend to interact more with others and are more likely to complete their doctoral degree successfully.

2.6.1.4 Providing effective resources and guidance support

Providing effective resources and guidance support on the part of the institution facilitates completion. Abiddin and Ismail (2011) state that the major factors influencing students' completion and attrition rates were a lack of resources and guidance support. These authors further state that the provision of such support to postgraduate students is primarily the institution's responsibility. Therefore, they proposed two approaches regarding the issues. The first approach involves giving adequate information and support at the different stages of students' studies, which includes a general information guide outlining the study process, as well as the support structures that the institution has put in place to facilitate initial progress. The institution must also put in place well organised interactive sessions on research resources such as the library, information management, as well as proposal writing and research methodology, which will in turn facilitate the completion of postgraduate students. The second approach focuses on graduate development and progress. The authors proposed that this should be in the form of an interactive website that will serve as a platform for the postgraduate students to discuss and share among themselves. The

provision of comprehensive and relevant information and training – from the moment of induction throughout the process – and the encouragement of a collaborative academic environment – involving well-matched mentors, peer group interaction and collaborative work. These surface repeatedly as key institutional strategies to enhance completion, alongside other strategies that may be adopted to specifically address barriers to completion as noted in section 2.5.

2.6.2 Individual strategies

On the one hand, Kuh (2002) points out that ‘what students do’ during their university career is more important than who they are or which institution they attend. On the other hand, the literature reviewed above regarding barriers to completion has shown that there are various aspects relating to ‘who the student is’, in terms of personal, familial and socio-economic background, socio-cultural background, and the current situation, and ‘what an institution does or doesn’t do’ as noted under contextual factors, all of which are important for understanding students’ experiences in the doctoral study process. To understand students’ achievement strategies and practices, there is thus a need to go beyond Kuh’s point and analyse the student situation more holistically. Nonetheless, from a ‘what students do’ perspective, an important addition in the literature on completion are studies on ‘coping strategies’ as a specific group of strategies.

A particularly interesting study in Nigeria investigated the coping strategies that postgraduate students in agricultural education adopted in the process of thesis writing. Asogwa, Wombo and Ugwuoke’s (2014: 317) found eleven ‘highly accepted’ or prevalent individual coping strategies, which can be grouped as follows:

1. collaborating with others (such as student peers and lecturers other than the supervisor) in the process of data collection, the sourcing of materials, and thesis writing (from the start of topic selection to the final product);
2. using facilities outside the university to address research resource constraints (e.g. using outside libraries or a cybercafé);
3. identifying own training needs and getting training (e.g. in computer operation and data analysis);
4. gaining the supervisor’s attention by using various strategies (such as frequently visiting the supervisor’s office, calling the supervisor, showing appreciation for a supervisor’s work);

5. materially investing in the research process (e.g. by incentivising respondents, hiring research assistants), and;
6. borrowing money to cope with financial challenges.

Considering the barriers to completion identified in the earlier section, the study by Asogwa and colleagues shows that the coping strategies addressed key barriers related to the research environment and facilities, collaboration and research support, peer support, supervision relationship and funding. Furthermore, strategies can therefore also include being resourceful in identifying challenges (such as training needs, or constraints in the research process) and addressing them proactively and creatively. What the study of Asogwa et al. (2014) did not consider are individual strategies related to personal and psychological factors, such as motivation as well as other intentional actions that students employ to manage and overcome other barriers to completion identified above. Moreover, in this thesis the focus is not only on completion practices, but more so, on what actually informs African doctoral students' strategies in terms of their experiences of doctoral study, their backgrounds, skills, attitudes and competences, or, as is shown in Chapter 3, based on Bourdieu's terms, their 'habitus' and 'cultural capital' as these manifest in their 'practices' in the 'field' of doctoral study.

2.7 Summary of the chapter

This chapter has reviewed contemporary literature on doctoral study and its common features, including the peculiarity of doctoral study in South Africa, its social functions, structure, processes, and models of supervision, as a way of starting to define doctoral study as a 'field'. In its main section, the chapter has outlined and discussed the challenges or barriers that impact on doctoral students' attainment of completion, followed by an overview of strategies for attaining academic success.

The main lessons from this review of literature are as summarised in Table 2.1, which provides an overview of the factors that contribute to non-completion, as well as contextual matters and strategies. Doctoral education is considered as the 'field' within which the various categories of barriers are encountered by students. Bio-social and psychological factors are shown as impacting on students' experiences in their academic attainment. Socio-cultural factors, with the emphasis on family and cultural background and on how these factors impact on the students' experiences, are shown to operate at varying degrees due to existing differences in their backgrounds. The doctoral programme itself is viewed as the core within the context of the institution, with students

highlighting various influences as sources of barriers. Finally, the strategies adopted for completion of doctoral study as revealed from the literature are outlined and captured in Table 2.1.

Table 2.1: Non-completion: Context, contributing factors and strategies

Context: Doctoral study
Issues around non-completion
Personal and psychological factors
Age/maturity and marital status
Motivation, perseverance/persistence, academic self-esteem, student disposition (adjustment and problem-solving attitude)
Socio-cultural factors
Family factors
Social status, socio-economic status, social network
Cultural background
Academic/institutional factors
Nature of doctoral programme
Research environment, information, resources and facilities
Supervisor and supervision process
Peer influence
Institutional culture and practices
Funding to pursue scholarship
Strategies
Contextual Strategies
Provision of comprehensive information
Mentorship as an institutional strategy
Understanding participants' experiences
Providing effective resources and guidance support
Individual strategies
What students do to address barriers (factors)
Coping strategies

The argument in this thesis is that research on doctoral studies needs to be conducted within specific contexts. An understanding of the experiences of African doctoral students in a historical black university is pivotal to this study. Choosing a historically black university (HBU) in South Africa is particularly relevant because the historically white or advantaged universities are 'research-intensive' and well-resourced for doctoral study, whereas HBUs were designed to be teaching institutions. Given Herman's (2011a) argument around the need to increase the participation and completion of black students in South Africa, gaining an understanding of their experiences and practices in a historically black institution may offer new knowledge on achieving that goal.

Finally, as shown in the next chapter, in linking the (mostly empirical) higher education literature to sociological theory, the study uses Bourdieu's concepts to present a fresh attempt at categorising the factors affecting doctoral studies and ways in which these can be addressed. The literature reviewed shows that low completion rates among doctoral students persist. While there is a plethora of literature on the challenges students encounter, literature on what the students do to attain completion is rather scanty and less theorised. Specifically, the way students' intrinsic attributes and abilities facilitate their completion of studies, from the point of view of Bourdieu's theory of practice, has not been meaningfully explored. The next chapter therefore proposes a way of understanding how students act in pursuit of completion as a product of an interplay between their experiences of doctoral study, their personal dispositions and the relevant resources, skills and competences that they bring to the field.



CHAPTER 3: CONCEPTUAL FRAMEWORK

3.1 Introduction

The previous chapter showed how the existing literature can be classified in terms of different types of barriers and strategies that have a bearing on doctoral students' completion of their studies. In accordance with the research questions that this study seeks to address (see section 7.1), this chapter aims to integrate the findings from previous studies into a conceptual framework, incorporating Bourdieu's theory. This chapter discusses Bourdieu's theory of practice with emphasis on the concepts of habitus and cultural capital. This informs the investigation of the issues raised in this study from an interpretative perspective. The study explores the attitudinal responses and the resources utilised by students in the process of doctoral study, as well as the practices they employ to manage their challenges. Thus, the concepts of habitus and cultural capital guide the analysis of data collected from participants, with a focus on the central issue of practice. At the same time, the study aims to answer the research questions regarding students' personal characteristics and highlights participants' experiences as they attempt to complete their studies. In order to achieve this, the study expands on the theoretical toolkit of the practice theory drawn from Bourdieu's (1990) 'logic of practice' and outlines the concepts of habitus and cultural capital in detail. Thus, this study should help to improve our understanding of the circumstances that shape the way the students' attributes, beliefs, knowledge and competences inform their practices in the field of doctoral study. Furthermore, an explanation is offered of students' strength or resources, using Yosso's (2005) argument on community cultural wealth. Finally, the study shows how, at the empirical level, the existing literature informs the analysis.

3.2 Bourdieu's theory of practice: meaning and implication

The theory of practice is associated with the French theorist and sociologist Pierre Bourdieu and considered as one of Bourdieu's major works. By means of a diversity of empirical research studies, Bourdieu developed a number of theories related to culture, power, domination, cultural reproduction and sociological knowledge (Laberge & Kay, 2002). Bourdieu's work that emerged as the theory of practice draws on a combination of diverse intellectual sources, mainly from three critical classical social theorists, i.e. Marx, Weber and Durkheim (Laberge & Kay, 2002). However, Bourdieu agrees and disagrees with these theorists on different fronts. One of Bourdieu's innovations is the recognition of many forms of power in social life, which he calls 'capital' (Laberge & Kay, 2002). An aspect of this social life is the academic life of doctoral

students and their experiences as they try to achieve completion of their studies in the face of various challenges.

One way of understanding what leads to student success despite their challenges is to utilise Bourdieu's theory of practice model with a focus on two constructs: habitus and cultural capital. These constructs are utilised to analyse the data. While there has been extensive research on Bourdieu's theory of practice and the constructs of habitus and cultural capital, few studies have focused on them to inform practice. Moreover, personal characteristics, as well as personal, social and educational factors, and family background, are seldom examined as important influencers of the practices adopted to overcome barriers, in this case the barriers students experience in doctoral studies to achieve successful completion (Gardner, 2008).

3.2.1 Major features of Bourdieu's theory of practice

Bourdieu's practice theory is epitomised by some major features. The theory represents a flexible theoretical approach that interlinks the nature of the concepts to generate practices that are the results of a person's habitus and capital in any given field (Bourdieu, 1977). This implies these elements must be considered holistically without being detached from each other. Bourdieu (1984: 101) notes that the interaction of habitus, field and capital generates the logic of practice as outlined in the following formula: $[(\text{Habitus} \times \text{Capital})] + \text{Field} = \text{Practice}$. This suggests that these three concepts in the practice theory are mutually inclusive and intertwined in relationship and application. While it is not within the scope of this study to discuss all these concepts at great length, a few important points must be flagged.

Bourdieu's practice theory is elaborative, encompassing and interdisciplinary. Laberge and Kay (2002) consider his work as linking several fields of study like Anthropology, Sociology and Philosophy to address a broad range of theoretical themes. Thus, in understanding human actions and agency in a social and multi-dimensional world, Bourdieu's very influential contribution to these fields of study, especially Sociology and Anthropology, was his development of the practice theory. This is evident in two of his books: *Outline of a Theory of Practice* (1977) and *The Logic of Practice* (1990).

Bourdieu's theory of practice tries to understand how social beings, with their diverse motives and intentions, transform the world in which they live through an interactive relationship between social structure and human agency. The theory of practice focuses on the transformation of the world by people's motives and intentions as they put into action their agency to manage their activities within a social structure. Expanding on Bourdieu's thought, Ortner (2006) argues that

the theory of practice seeks to explain the relationship(s) that exist between human action and some global entity which we call 'the system'. This is applicable to African doctoral students who look inward at their intrinsic abilities and are driven by their motives and intentions to achieve progress and eventual academic success. Therefore, they initiate actions and practices in the social space of a university or more generally in the field of doctoral study.

Furthermore, Bourdieu used the theory of practice model to emphasise capital as a source of social inequality in the social world as argued in his work '*Outline of a Theory of Practice*' (1977). Thus, the unequal distribution of capital or resources within society could be observed in the family and the educational system, or, in theoretical terms, in the interaction between structure and human agency. In other words, the domination and relative strength demonstrated by some individuals are mainly the result of an unequal allocation of resources. Doctoral students could demonstrate different practices in their doctoral journeys due to inequalities in their capital. Finally, Bourdieu (1977) points out that an important contribution of the theory of practice is the reconciliation of the dualism of patterns that exist in social structures which Bourdieu attempts to overcome and explain as the strategy or practice by the complex interplay of his various concepts. Thus, Bourdieu's theory of practice emphasises three concepts: habitus, capital and field, as discussed in detail in this study. However, there are some basic assumptions Bourdieu spells out that are considered relevant to this study, which need to be examined.

3.2.2 Key assumptions of Bourdieu's theory of practice

In demonstrating the applicability of the concepts of habitus and cultural capital to an analysis of practices used to achieve academic success in doctoral studies, certain assumptions of Bourdieu's theory must be highlighted.

First, as mentioned earlier, there is an interrelationship between the concepts of the practice theory. Bourdieu and Wacquant (1992) emphasise that one's practice and actions are the product of one's habitus and capital within a given field. Secondly, Bourdieu (1974) argues that individuals could use their cultural capital to have successful careers either in sport, academics or business, despite their socio-economic backgrounds. Bourdieu (1966 in 1974) is of the view that the cultural capital is commensurate with the level of formal education of one's parents and grandparents, and the nature of one's place of origin and permanent residence. Thirdly, Bourdieu (1977) argues that students' ideas about their individual potentials are informed by their family's social class position and these ideas influence their actions within a given field. Fourthly, Bourdieu (1977) and Bourdieu and Passeron (1990) argue that cultural capital is transferred over generations and is possessed by families and individuals. Expanding on Bourdieu's work, Sullivan (2001) further

points out that cultural capital is transmitted within the home and it has a significant effect on academic performance. Thus, the most valuable resource or capital in this respect is cultural capital, which Bourdieu (1973) emphasizes as directly related to and informs academic success.

3.3 Conceptualisation of the main concepts of Bourdieu's theory of practice

Bourdieu's concepts of habitus and cultural capital have been used to construct the conceptual framework for this study. They provide the basis to understanding and explaining students' practices as used in the interplay between habitus, field and cultural capital to explain the practices adopted by African doctoral students. This section offers a brief discussion on the concepts of habitus and cultural capital as the conceptual lens for this study, with emphasis on their features, empirical indicators and their application to answer the main research question.

Yosso's (2005) view provides another platform to examine and highlight other forms of cultural capital such as aspirational, navigational, social, linguistic, familial and resistant capital, as they may influence academic achievement. Yosso's forms of cultural capital are used in this study with an intention to draw on and emphasise other forms of knowledge that African doctoral students bring with them into doctoral study.

3.3.1 Habitus or the personal disposition of doctoral students

The notion of 'habitus', which is central to Bourdieu's thought, is a term used by the French sociologist to describe a social property of individuals that orients human behaviour without strictly determining it. In order to mediate between structure and agency, Bourdieu introduced the concept of 'habitus' as 'the attitudes that actors internalize while being conditioned by past experiences, and re-enact in present everyday practices, though with a certain degree of freedom' (Maggio, 2018: 11).

Bourdieu (1984: 170) considers habitus as 'the product of interplay' between structure and the free will of an individual over time, or as 'dispositions shaped by past events and structures, and that shape current practices and structures and, importantly, that condition our very perceptions'. Thus, habitus is created and reproduced unconsciously, 'without any deliberate pursuit coherence ... or conscious concentration' (Bourdieu, 1984: 170).

Bourdieu himself often fails to offer a clear definition of the construct of habitus because he claims it is indefinable and inaccessible outside of human practice. Jenkins (2002: 75) notes that the habitus is located 'inside the actor's head', as a form of mindset that orders the actions of the individual or, as Bourdieu (1990a: 61) says: 'these dispositions and generative schemes of

classification are literally and metaphorically embodied in human beings'. In other words, the individual's habitus is revealed in ways an individual responds through actions to circumstances that reflect the personality and disposition of the individual. This suggests that over time attributes such as family, class, race and gender become embodied and internalised (Bourdieu, 1990a).

Bourdieu (1984) uses the term habitus as a conceptual tool to reconcile agency-structure, objective-subjective and micro-macro dualisms within the methodological framework of structuralist constructivism. It is through the concept of habitus that practice through agency is linked with the concepts of capital and field that consist of structure or 'arrangement make-up'. In other words, habitus can be observed as the routine and regular behaviour an individual displays in response to circumstances, activities or actions.

Furthermore, Bourdieu (1977: 85-87) adds that habitus is a

'system of durable, transposable dispositions which is expressed in a way of walking, a tilt of the head, facial expressions, ways of sitting, always associated with a tone of voice, a style of speech and ...a certain subjective experience'.

This indicates the actions of individuals as habitual in terms of their natural ways of acting, while the habitus of the individual is revealed through actions and could be described as guided by instinct; this cannot be learnt but is inculcated by the individual (Bourdieu, 1977). Consequently, Reay (2004) argues that the habitus of an individual suggests an interference of an unconscious habitual act demonstrated by the feelings, action and ways of thinking of the individual and a reflection of the social world from which these have been acquired (Reay, 2004).

Expanding on Bourdieu's work on the concept of habitus, other scholars like Pickel (2005) argue that the biopsychosocial conception of habitus presents habitus as a fruitful way of dealing with problems in social theory. Habitus provides a conceptual link between cultural and social dimensions of reality and/or the social world, which includes academic environments like university institutions (Pickel, 2005).

The concept of habitus from Bourdieu's perspective is operationalised as a tendency to act in a certain way or as a habitual inclination. Hence, it is proposed that doctoral students' dispositions show in their attitude and outlook, in other words their behaviour or ways of doing. The argument here is that the doctoral students' intrinsic characteristics can be observed as they are manifested externally in several ways as a 'normal' and unprocessed response of the human mind to a given circumstance. Such responses reveal the individual's inculcated traits such as being tolerant, studious, self-confident, determined, and tenacious, and displaying a willingness to act in

accordance with one's set goals, for example. These are all attitudinally and behaviourally related traits. Therefore, the concept of habitus focuses our attention on that by which individuals in doctoral study seem to be driven, in other words a form of embodied attributes, attitudes and resources that support doctoral students' ability to surmount challenges as captured in their narratives.

3.3.1.1 Features of habitus

Properties of habitus considered as habitual acts are observable traits demonstrated through the individual's actions. Habitus according to Bourdieu, (1977, 1984 and 1990a), Reay (2004), Wacquant (2006), has some features worth exploring. These features include being durable and transposable, the notion of being internal and meaning making, embodiment of history that results in continuity and is subject to modification and change, and the notion of mental attitudes and perceptions. Habitus is developed during childhood and reflects as the individual's natural way of doing things.

Bourdieu (1984) argues that habitus is an internal and a meaning-giving concept that influences the action of the individual. This suggests that habitus is intrinsic, inculcated and embodied by the individual over time and frames the way an individual behaves and composes himself/herself. In other words, these unconscious mental patterns of actions are acquired through lasting exposure to the social world, with both existing constraints and possibilities being internalised (Wacquant, 2006). In other words, the individual participants in the field of doctoral education as the focus of this study are driven by their aspiration and interest in academics and the ability to surmount challenges as demonstrated in their narrated experiences, in other words through what they say.

As noted above, Bourdieu (1990a) further argues that habitus is an 'embodiment of history'. Bourdieu describes this as the individual past experiences occurring in the present. In other words, as a product of social conditions and history, the notion of habitus reflects the social position that constructed it and the genesis of new creative responses that surpass the social condition that produce it (Bourdieu, 1990a). This suggests that habitus undergoes a process of change for as an individual engages with the rules of a field, experiences within the field could raise or lower the individual's expectations. This can bring about a social course that enables a condition of playing differently from the former or initial ones. Therefore, habitus could be described as a product of everyday experiences informed by choices made by the individual, either willingly or by chance, which connotes an invention. However, choices are shaped by opportunities and constrains

available to the individual, and circumstances that could be internal or external. Thus, habitus is structured by conditions of existence, and it generates practices.

In the light of the above, Bourdieu (1990a) argues that habitus has an historical element that links the individual's history and a combination of experiences acquired in the family to actions as circumstances are internalised and become added experiences to earlier socialisation. This indicates a continuous restructuring of previous experiences or encounters with the outside world. This further suggests that the habitus of the individual reflects continuity, modification and change as it is built up over time and is transported across space in relation to different fields such as a programme of academic endeavour, to acquire new dispositions and habits acceptable to a new social setting but different to the setting that created it (Wacquant, 2006). Thus, Wacquant (2006) views this continuity as stored social forces in the individual, imbibed and carried over time and space. The individual therefore has the capacity to adapt to a new setting as demanded by the rules of the field, as every field is autonomous and unique, without necessarily having to stick to old and non-profitable ways of doing things.

This investigation, therefore, infers habitus from the narratives of the students by means of interviews and gives it a crucial feature which is embodiment. Expanding on Bourdieu's work, Bourdieu (1984) describes habitus 'as being constituted of dispositions that are inculcated, structured, durable, generative and transposable' (Bourdieu, 1984 cited in Thompson, 1991: 12). Thus, habitus is a state of 'the body and of being, an ingrained disposition that thus seems natural. Bourdieu calls this the bodily hexis, where 'the body is the site of incorporated history' (Bourdieu 1984: 437, 466–468). In other words, hexis is the way in which social agents 'carry themselves' in the world; their gait, gesture, postures that are common and unique only to an individual. Thus, habitus is purposeful and transmitted but not actively taught. Habitus becomes active when it is related to a field of play (Bourdieu & Wacquant, 1992, Bourdieu, 1999; Lingard, & Christie, 2003; Christie & Wang, 2008). How valuable an inculcated attribute or habitual act is can only be observed, when one is in a field where such is needed. Hence, Bourdieu and Wacquant (1992: 127) explain that

'when habitus encounters a social world of which it is the product, it is like a "fish in water": it does not feel the weight of the water and it takes the world about itself for granted'.

In other words, habitus can be replicated through encountering a field that reproduces its dispositions (Reay, 2004). Since such dispositions are embedded, the habitus develops momentum that can generate practices for some time after the original conditions which shaped it have

vanished (Bourdieu, 1984 cited in Thompson, 1991: 12). However, when habitus encounters an unfamiliar field, it is like a fish out of water and the resulting disconnections can generate changes and transformations. Presumably, this is experienced by an individual as a challenge causing great discomfort or stress. Thus, Reay (2004: 438) argues that

‘such disjuncture between habitus and field occur for Bourdieu when individuals with a well-developed habitus find themselves in different fields or different parts of the same social field’.

Aligning with Bourdieu’s (1977) definition of habitus as an observable concept (see section 3.2.1), and expanding on Bourdieu’s work, Reay (2010: 435) notes that habitus can be viewed ‘as a complex internalized core from which everyday experiences emanate’. Reay (2004: 436) furthermore describes habitus as dispositions or ‘habitual acts’ that are evident by our feelings, how we act and think, and are inevitably reflective of the social context in which they are acquired. Thus, habitus is operationalised in this study as an abstract concept that can be observed in ways of doing, the attitude demonstrated by participants, and the perception or mindset of the participant. These ways of thinking, feelings and actions in the form of habitual acts are demonstrated by participants in their various and different circumstances in their pursuit of doctoral degree. Following the meaning and relevance of the habitus of an individual, the concept of capital makes habitus to fulfil its role in Bourdieu’s practice theory. This presents habitus as the ‘silent impetus’, while the cultural capital is the tool that makes the intrinsic drive active. Thus, the relationship between habitus and cultural capital in operation can be simply put as ‘knowing made known’. Therefore, individuals use internal abilities to get done what needs to be done only when they acquire or are equipped with the relevant competence in the form of knowledge and skills to do so. In other words, cultural capital drives the habitus.

3.3.2 Concept of cultural capital

Bourdieu (1986) acknowledges that each field values a specific sort of resources that he names capital. In identifying what could be considered as capital, Bourdieu (1977) presents capital as resources to include all the goods, materials and symbols, without distinction, but which are rare, capable and worthy of being sought after and are empowering an individual to function optimally in each field. As a result, the value of resources are determined by their relevance in a given field (Horvat, 2001; Lamont, 1992) where practice is generated at the intersection between habitus, capital such as cultural capital and field (Swartz, 2002). The relationship between the habitus of an individual, cultural capital and field is interactive and dynamic because they evolve according to the individual’s trajectory of experiences. This implies that an individual who possesses cultural

capital relevant to the field, achieve and become an effective player in the field of play or social space.

Bourdieu (1986) further describes capital as power that is capable of organising, building and converting resources into material and symbolic forms that are of great value to the individual within a social space. Capital can therefore be abstract, such as skills and abilities that enable action, according to Bourdieu's argument on the forms of capital. Expanding on Bourdieu's work, Harker, Mahar and Wilkes (2016) emphasise that the existence and relevance of capital lays in the meaning it has in the field and to participants within the same field. In other words, capital is meaningful to, and associated with a field. Thus, following on from the preceding argument, capital exists in different forms, which Bourdieu presents in his later work (see Bourdieu, 1986). The accumulation of any form of capital is hence of great value to the individual because it influences the individual's social trajectory and opportunities in life (Bourdieu, 1986).

Bourdieu (1986) presents capital in four forms, namely: economic capital, social capital, cultural capital and symbolic capital. These forms of capital could affect an individual in different spheres of life, including education. In other words, all forms of capital can affect an individual's educational opportunity, social environment, economic and cultural life, and family life, as reflected in Bourdieu's definition. Although all types of capital appear to be distinct, they are very closely linked to each other and they can be converted (Bourdieu, 1986).

Bourdieu's concept of cultural capital, which is of special importance to this study cannot be discussed in isolation of the concept of 'culture' of a group of people or family. The culture of a group of people can be used to identify them and differentiate them from others. Idang (2015) argues that culture is an embodiment of different values, such as social, moral, religious, political, aesthetic and even economic values, with all of them closely related to each other. Antia (2005) and Etuk (2002 cited in Idang, 2015) argue that the culture of a group of people depicts their values as it concerns what the people hold as true, right or proper. These values explain much of the cultural traits by which people survive and become identified, as no group of people exists without a set of values. These cultural traits and set of values are transmitted inter-generationally and intra-generationally, which keeps them from extinction. Thus, cultural capital from Bourdieu's perspective is the embodiment of these traits, set of values, beliefs and cultural knowledge, which can become a resource or capital to an individual (Bourdieu, 1986).

3.3.2.1. Features of cultural capital

Cultural capital is a sociological concept that was first developed by Bourdieu and Passerson to indicate the relationship between culture and education and their contribution to social reproduction (Bourdieu, 1973; Bourdieu & Passerson, 1977). Cultural capital, like habitus, takes many shapes and forms in Bourdieu's writing and even more so in the wider sociological work of other scholars (Reay, 2004). As a result, these terms are described from different points of view. However, following Bourdieu's theory of practice (1977), cultural capital as a concept is basically linked to the concepts of habitus and field. Thus, habitus is significant to the concept of cultural capital because much of cultural capital of the individuals is reflected through their habitus.

Furthermore, cultural capital is formed not only by the habitus of the family in terms of values, interest and perceptions, but also by the objective chances of success of the class to which the individual belongs, and in their daily interactions, and it changes as the individual's position within a field changes (King, 2005; Mahar, Harker & Wilkes, 1990; Gorder, 1980). Consequently, Bourdieu (1974) argues that each family transfers to its children indirectly a certain cultural capital and a certain ethos. Bourdieu (1974) refers to ethos as systems of unspoken and deeply internalised values that define attitudes that can facilitate the demonstration of the individual's cultural capital. In other words, Bourdieu's argument is that cultural capital is internalised by the individual from the family lineage.

Thus, cultural capital in its embodied form includes knowledge, skills, education, abilities and advantages that a person has or imbibed over time, which give them a certain status in society (Bourdieu, 1986; 1993). Bourdieu uses the term cultural capital to describe bourgeois culture as an unequal distribution that encourages conservation of a social hierarchy that disguises itself as individual talents and academic meritocracy. This is corroborated by the views of other scholars who opined on the ways of thinking and understanding life, that

'expected behaviours, expected language competencies, the explicit and implicit values, knowledge, attitudes to and relationship with academic culture required for success in school are all competencies which one class brings with them to school' (Henry, Knight, Lingard, & Taylor, 1988, 2006: 233).

Based on the source of formation of cultural capital such as habitus of family, objective chances of success and daily interactions suggest that cultural capital could be transmitted within the family, workplace and among peers during socialisation.

Bourdieu (1974) further points out that an individual's cultural capital is the competence internalised from their cultural background and the level of education in the family lineage which influences successful careers in different spheres of life. These competences that the individuals possess from their background, Bourdieu (1977; 1986) argues, are culturally and educationally related. According to Bourdieu (1977), educationally related cultural capital includes linguistic competence as he views language as an intrinsic element in the competitive struggle in the academic field. Furthermore, Jenkins (2002: 157) reiterates and argues that 'in the academic field, the use of language is one of the significant modes of struggle: words are both currency and commodity in the academic marketplace'. Thus, in a field such as doctoral study which is subsumed in the university field, the use of language is inevitable as it is at the core of every activity. However, Bourdieu (1977) alludes to ways of talking/speaking which are important in the doctoral study as some ways of speaking are reflections of one's own capital naturally embedded in the individual. This suggests that meaningful cultural resources within the field such as linguistic competence acquired from the cultural socialisation of individuals, especially from their well-educated parents, facilitate educational success.

Therefore, Bourdieu's cultural capital may take many forms that reflect behaviours, dispositions knowledge and habits internalised in the socialisation process or accumulated through investment of resources in education, training or in the acquisition of cultural goods.

In addition, culturally related cultural capital refers to competences in the form of knowledge, skills and abilities the individual accumulates and internalises from their culture. This could be either the family culture or culture of the community of origin. Conversely, with respect to the healthcare field, Leavitt (2004: 26) defines

'cultural competence as a set of behaviours, attitudes, and policies that come together in a continuum to enable a healthcare system, agency or individual practitioner to function effectively in transcultural interaction'.

In other words, cultural capital in a field is relevant to effective functioning and achievement of success in that field.

This differs from cultural competences with regard to education as researchers from the field of education have had a difficult time defining cultural competence, or even settling on a single term for the concept. Thus, in education, the use of the term cultural competence is more limited. Exceptions include Ladson-Billings (2001) and Ford and Whiting (2008) who advocate for the development of cultural competence on the part of students. Ladson-Billings view cultural

competence as culturally relevant pedagogy, stating that cultural competence ‘refers to the ability of students to grow in understanding and respect of their own cultures’, and this is especially important due to the growing number of teachers who ‘have little or no genuine experience with cultures different than their own’ (Ladson-Billings, 2004: 78).

Bourdieu’s own operationalisation of cultural capital did not capture the broad conceptualisation mentioned above. He assumed that there is significant relationship ‘between academic success and the family’s cultural capital measured by the academic level of the forebears over two generations’ (Bourdieu 1977: 497). However, Sullivan (2001: 895) notes that ‘Bourdieu is not entitled to assume that a high parental level of education reveals a high level of parental cultural capital’. According to some scholars, Bourdieu’s own operationalisation of the concept is quite inadequate (Sullivan, 2001) and does not capture the broadness of the concept. They argue that in Bourdieu’s terms only a minority of students possess (relevant) cultural capital because it ‘consists of familiarity with the *dominant* culture in a society, and especially the ability to understand and use “educated” language’ (Bourdieu, 1986: 893, *my emphasis*). Thus, ‘the possession of cultural capital varies with the social class’ (Bourdieu 1986:893). From the social class perspective, cultural capital can be examined by looking, for instance, at students, their cultural practices, skills, attitudes, knowledge in relation to their schooling experience or outcomes, or by looking at parents’ education, cultural practices and skills and ability to engage successfully in processes (Bourdieu, 1977). Altogether, this suggests that the cultural background and level of education of the family would determine the cultural capital that an individual internalises. Cultural capital may thus be influenced by the differences in level of class, education and the nature of family lineage as through parental talk and social interaction in the family setting parents transmit knowledge, skills, abilities and competences, providing their children with cultural capital needed to succeed in life as they become adults. Thus, an individual’s cultural capital aligns with the family and community culture of the individuals as he/she grows from childhood to adulthood.

Given the engagement of a university in research, the culture of a university tends to be research oriented. Thus, the cultural knowledge acquired both from the family, peers and work life and place, as well as knowledge acquired through the education system, is research based. In other words, with respect to doctoral study such knowledge and competences are considered as abilities and skills (Cabeleira, 2015; Willison & O’Regan, 2007; Knopf, 2006). Thus, doctoral students’ competences considered as cultural capital reflect in different ways. Buckley et al., (2009) and Knopf (2006) emphasise forms of expertise in the research process as needed competencies such as the use of computers and computer software and the ability to be skilful to undertake critical

reading to filter relevant information. This relates to adequate engagement with the research process. Other scholars point out aspects of engagement in seminars to develop skills for the construction of the object of research, and academic writing skills needed for writing the doctoral thesis (Cabeleira, 2015) to facilitate their completion of doctoral study. Robles (2012) reiterates other competences applicable in doctoral study, emphasising communicative skills and including abilities such as being able to work as a team player. Therefore, the absence of such generic skills and abilities can be sources of challenges to successful completion of doctoral study.

3.3.3 Doctoral study as a field

To elucidate the term ‘field’, Bourdieu uses the analogy of a football field as a social space where individuals interact with other players (Bourdieu, 1977). In a football game, for example to play the game well, players must understand that they have set positions, there is a set of rules that apply to the game, and the field has internal divisions and external boundaries. This analogy then transfers to other social spaces like the field of doctoral study.

This section argues that the interconnection between field, habitus and cultural capital provides a means to understand the practices doctoral students adopt in the field of doctoral study as it involves rules and norms of the game, expected competences of players that could be habitual but are needed to play successfully. Bourdieu (1977: 72) notes that habitus is ‘the strategy generating principle enabling agents to cope with unforeseen and ever-changing situations’. Therefore, habitus can be said to guide the individual’s practice which could be unconscious while aimed at achieving one’s conscious objectives. Thus, habitus engages with the social world, ensuring that individuals act ‘intentionally without intention’ (Bourdieu, 1990b: 12) to align with the relative position held in the field. Further, Bourdieu and Wacquant (1992: 117) argue that habitus ensures that agents act in accordance with the field-specific rules as all agents tacitly recognise ‘the value of the stakes of the game and the practical mastery of its rules’. This implies that agents are expected to internalise formal and informal rules and act intentionally without necessarily having intention to align with the rules on the field. Habitus also manifests the dialectic relationship between structure and agency (Bourdieu, 1977; 1990) especially as there exist tensions between these interacting and contradictory pairs: structure and agency.

According to Bourdieu (1990a), the interaction of habitus with cultural capital and field is the source of normal practice, but the concept of field gives the concept of habitus its unique and active quality which gives rise to Bourdieu’s conceptual framework. Cultural capital, which represents the totality of one’s intellectual qualification (Bourdieu, 1986), is the primary cause of the status and relative positions of a player within a social field, and one’s culture presupposes a

process of embodiment. There is, however, a problem when seeking to neatly discern habitus from cultural capital. Reay (2004) for example emphasises that Bourdieu describes the relationship between habitus and cultural capital as inseparable pairs. Thus, Newman, Goulding and Whitehead (2013) note that with time, through socialisation and class mobility, individuals acquire or develop more cultural capital.

Moreover, Bourdieu (1975: 19) describes a social field as a ‘locus of struggle’ with defined boundaries where their affects end and the effect of another social field begins. Mayrhofer, Iellatchitch, Meyer, Schiffinger and Strunk (2004) note that these boundaries are not predefined and that the battles between agents are about relative positions within the field that make individual compliance with the rules of the game a necessity. Walther (2014) points out that the position that an agent occupies in a field creates obvious rules that determine his/her potential trajectory, i.e. the limits of social mobility within a social field (Bourdieu, 1987).

Given the untidiness of the concept of habitus, one might ask why Bourdieu introduces it into his theory at all. The answer is that Bourdieu thinks that the concept of habitus solves a fundamental problem in sociology – the conflict between structure and agency. Consequently, Bourdieu’s major contribution is his constructivist structuralism (Bourdieu, 1989), as he attempts to reconcile structure and agency and understand practices as the result of social structures in a field (structure, macro) and one’s habitus (agency, micro), which is an embodied history. Bourdieu places emphasis on social structures, which he balances with the notion of agency, namely an individual’s capacity to act and make free choices to reproduce the structures that limit them. In doing so, they are ultimately ‘trapped ... within the limits of the system of categories’ they owe to their upbringing (Bourdieu and Wacquant, 1992: 126). As result, this can be responsible for the challenges students encounter as well as inform the attributes and attitude they imbibe and demonstrate in the field of doctoral study.

Aligning with this, Walther (2014) notes that the structure acts as rules that determine and condition individuals’ thoughts and behaviours which imply from a structuralist perspective that people act as robots programmed to conduct themselves in response to the structured patterns already in existence, but their actions are influenced by the choices they make due to their agency. Furthermore, Wacquant (2011) points out that rules are not formalised, but they are more often unspoken in nature, and need to be internalised by the agents to demonstrate appropriate practices. This suggests that a university’s existing structures, particularly with reference to doctoral education, inform the thoughts and behaviours of doctoral students, which could be complex, especially when the rules are not defined as to what is expected of a doctoral student and what the

students should expect in the doctoral programme and process. Thus, this implies the doctoral student's agency interfaces with the structures to determine possible choices as they internalised these unspoken rules. Bourdieu (1966 in 1974) argues that these rules are field-specific, given the autonomy of the field, but they enable the agent to anticipate tendencies and opportunities in future as they internalise these rules.

Furthermore, Bourdieu and Wacquant (1992: 108) describe agents as 'bearers of capitals' and suggest that agents have a certain degree of liberty or agency in their choice of practices or in their fight for relative positions in the social field, and always act 'intentionally without intentions' (Bourdieu, 1987, 1990b: 12) in accordance with the rules of the game and their relative position in the field. As a result, when individuals make choices or consider the principles underlying those choices, they are strongly influenced by the structure (Wacquant, 1989).

To summarise, therefore, their actions and what can be done are shaped by the conditions of the field, the rules of the game, the resources they possess as individuals that are qualified to be players and their views of the social world. Thus, for a complete application of the theory of practice framework, this implies the consideration of one's resources (capital, particularly cultural capital), and the orientation one has towards using those resources (habitus) to implement the model of practice in the doctoral study field in the way that Bourdieu has intended.

Habitus, as internalised social structures of family, work life and place, university, the perception of the world around and an understanding of the rules of the game, tends to impact the way African doctoral students manage their challenges. Bourdieu's (1973) emphasis on cultural capital can be said to be directly related to and informs the student's habitus to the extent that the application of the cultural capital indicates the habitus of the individual. Thus, the cultural capital of an individual could inform academic success, such as progress and completion of doctoral study, if the individual student can convert the available cultural capital to academic success through a form of habitus (Jaeger, 2009). Such form of habitus could include valuing academic pursuits, and having the self-confidence, as revealed in habituated willingness, to be educated at doctoral level (Swann, 1999). Consequently, African students with cultural capital such as knowledge and research skills could attain academic success if they have the relevant habitus, embodied linguistic styles and styles of interaction to facilitate the application of cultural capital.

3.3.4 Bourdieu's concept of practice

The term 'practice' is used in several disciplines by various researchers who have applied it directly or indirectly in their fields of study. Generally, practice refers to an act itself, a way or

pattern of acting, or doing something regularly, and the actual application or use of an idea, method or belief. The theory of practice is a set of concepts that includes habitus, capital, field, and practice, with which Bourdieu challenged both the methods and epistemology of the social sciences and contributed to and transformed the debate on human actions. With the theory of practice, Bourdieu breaks down the arguments advanced by structuralists who emphasised that the ultimate determinants of human behaviour are innate structures in the human mind, thereby placing excessive emphasis on the repressive power of pre-existing social structures. He also rejected the views of phenomenologists and ethno-methodologists on human action because they insisted too much on the importance of individual experiences and the unbound freedom of the individual actor to account for human action, as opposed to pre-existing social structures. Having rejected their arguments, Bourdieu used the theory of practice to understand why people act the way they do and systematically theorised what determines human actions. In other words, Bourdieu views practice as human action in response to a field of play (Bourdieu, 1977). Therefore, according to Bourdieu, human action within a social space or field is a function of the personal resources of the individual. This is a reminder of Bourdieu's formula: [(Habitus x Capital)] + Field = Practice. It is evident that the field defines the habitus and the capital, particularly cultural capital, which gives rise to acceptable human action. The relationship between habitus, cultural capital and field is positive when habitus and cultural capital support the spoken and unspoken rules of the field. When this happens, Maton (2008) and Davey (2009) equate it to the fish-in-water analogy, saying that a fish operates optimally in its known surroundings. So too do students who have been exposed to a holistic academic culture, for they function successfully in formal academic situations, particularly students who belong to the dominant group. In other words, students who lack the relevant habitus and cultural capital of the field struggle to come up with actions that facilitate their achievement of success. Thus, working-class students in an elite institution, or black students in a historically white university, may not feel like fish in water. In its focus on African doctoral students in a historically black university (HBU), this study investigates relevant and acceptable practices in the field as an indication of students' possession of the needed habitus and cultural capital as evident in their being consistent in the field as players.

3.3.5 Critique and application of the theory of practice concepts

It is without doubt that Bourdieu's theory of practice has provided new leverage for scholars and researchers to understand the social world; there are, however, numerous critiques against it from many scholars (e.g. Tooley & Darby, 1998; Nash, 1999; Jenkins, 2002; Sweetman, 2003; Sayer, 2005; Reay, 2015). Among the critiques is that Bourdieu's writing style has been described as 'dense' and 'showing aversion to clear definition of his concepts' such as habitus and cultural

capital (Swartz, 1997; Nash, 1999; Simeoni, 2000). Some scholars have therefore argued that this has created many error-laden applications and interpretations of these concepts (Sallaz & Zavisca, 2007).

One illustrative critique is by Jenkins (2002) who criticised Bourdieu's conceptualisation of habitus as being too deterministic. Conversely, other scholars disagree with Jenkin's description of habitus. Bourdieu himself defended his position repeatedly (Bourdieu & Wacquant, 1992). Reay (2015) has also critiqued Bourdieu's rigidity because of his focus on taking an 'objective' and 'scientific' approach; according to Reay this fails to acknowledge the influence of the affective (emotional/sentimental) domains of human life.

In addition, there are a number of other influential theories that 'compete' with Bourdieu's theory of practice and would be relevant for an investigation of African doctoral students' completion practices. For instance, reviewing Ogbu's the cultural-ecological theory, Foster (2004) has asserted an established link between minorities' academic achievement with their ethnicity and willingness to conform to their environment. Ogbu (2008) emphasises the success and failures of minority students as products of their complex community and family dynamics. In other words, the students' family, community and culture can create an environment that encourages success in academic work. The capabilities approach developed by Sen (1984, 2004), Nussbaum (2011) and others, emphasises individuals' capability to function successfully in various environments. Finally, there are a number of relevant higher education theories, such as student engagement theory (Kuh, 2002; Kuh et al., 2006; 2007), retention theory (Tinto, 1990; 1993; Tinto & Pusser, 2006) and other insights from the scholarship of teaching and learning (Tight, 2012) that could produce relevant conceptual frameworks for a study of African doctoral students' completion practices.

The review of Bourdieu's theory of practice in this study and the application of the key concepts of his 'mathematical model' as lenses to explore students' experiences has a dual purpose. The concepts are applied in the way conceptualised in this chapter (and may therefore divert in some respects from other accounts given the 'dense' nature of Bourdieu's writing) to serve, on the one hand, as conceptual lenses; on the other hand, their proposed relationship (as indicated in the 'mathematical model') also provides an opportunity to further theorise their dynamic relationship.

3.3.6 Relevance of the theory of practice concepts: habitus and cultural capital

This section delineates the relationship between the concepts of habitus, cultural capital and the field of doctoral study, as presented above in this section, and their application to this study. The

concept of habitus considered as actors' dispositions in this study allow us to understand students' experiences in doctoral study, and how their habitus is activated by their cultural capital within the same context. Bourdieu's concepts of habitus, cultural capital and field (Bourdieu, 1977; Bourdieu & Passeron, 1990) are used in analysing the data, thereby identifying the students' intrinsic attributes, resources and the practices adopted by them in the face of their different experiences as they make an effort to attain completion of their studies.

Within this context, the students are given the space to showcase what they have inculcated as intrinsic attributes from where they came, and how their past experiences inform the current. Suminar argues (2013: 204):

'Bourdieu's theory of practice ties all three core concepts together such that actors' dispositions (habitus) not only reflect their lived experiences but also depend on changing capital endowments and the boundaries of fields, including rules of the games.'

In terms of this study therefore, elaborating on Bourdieu's theory of practice in analysing human actions provides a broader understanding of how actors (in this case African doctoral students) interact within their social world to manage their challenges through employing various intrinsic resources.

In South Africa, the disparity in higher education is more prominent in relation to social class inequalities and socio-economic issues, especially since seclusion of Africans has disadvantaged the African doctoral students (see Jansen, 2010). The university setting dominated by the culture of the dominant social classes seems to favour the white students, because they make little or no adjustment to succeed (Gumport 2007). At the same time, the cultural, social ties and other resources that the low socio-economic background or working-class students possess that may have influenced their academic success, are ignored and remain unacknowledged because they do not exist within the culture of the dominant social class in the university and larger society (Wacquant, 1998).

Bourdieu's approach implies that African doctoral students playing within the field of doctoral study must do so with an understanding of the rules of the game. But this may not be fully the case due to some unspoken rules of the doctorate game, in addition to the fact that they, the students, are novice researchers. The experiences and practices to attain completion of the students reveal their habitus, cultural capital and the influences they have experienced (Davey, 2009; Maton, 2008).

Furthermore, appreciating Bourdieu's concepts of habitus, namely the personal characteristics and psychological attributes such as motivation, determination and self-esteem, as well as cultural capital such as skills, competences and knowledge that an individual imbibed through conscious choice, may help us to understand why and how students persist in the field and continue in the game in the face of challenges. This also raises the question as to how they manage to overcome various barriers to ensure completion. It furthermore suggests that the individual doctoral student displays ability and capacity to handle adversity to complete his or her study. Additionally, students exploring and trying to understand the rules of the game, and the boundaries of the field, get informed and become contestants, both in the game and for positions in the field. Therefore, the nature of cultural capital and habitus acquired both from their family background and the experiences they encountered during previous years of studies are considered relevant in understanding the factors that exist as barriers.

It is important to consider the fact that the persistence demonstrated by students reveals a major insight in understanding the various coping strategies adopted to complete doctoral studies. It also highlights the 'bag of resources' with which they entered doctoral study.

3.4 Conceptual-analytical framework

Putting Bourdieu's concepts from the theory of practice together with the concepts discussed in the literature review chapter is relevant to identifying empirically what the issues are around doctoral students' completion. In view of the reviewed empirical and theoretical literature on doctoral study, Bourdieu's theory of practice enables the formulation of a robust conceptual-analytical framework for this study on understanding African doctoral students' practices. The study argues that personal and psychological factors as well as some socio-cultural factors fall under the notion of habitus as indicated in Table 3.1 and that they can be observed empirically as such. Socio-cultural factors such as family and cultural background, social network and the academic environment are considered and empirically observed as cultural capital and habitus indicators due to the overlap of the influence of these factors, following Bourdieu's view as reflected in the theory of practice (see Table 3.1). In other words, some of these factors are both empirical indicators for habitus as well as for cultural capital. Conversely, the barriers and factors dealt with as institutional factors represent attributes of the field of doctoral study. However, these institutional factors are also observed as overlapping empirically in the determination of participants' practices for completion. Thus, in gaining an understanding of students' experiences within the field so as to proffer solutions that can address lack of completion, an investigation of these empirical indicators cannot be overemphasised.

The framework, as indicated in Table 3.1, specifies the concepts of Bourdieu's theory of practices, such as habitus and cultural capital, demonstrated in the field to yield relevant action, and the factors through which the empirical indicators could be observed. In addition, the concepts in the theory as reflected in the framework help to give a better understanding of the factors informing barriers in doctoral study, which existing literatures fail to do within a theoretical framework. Thus, the framework (see Table 3.1) is an integration of the concepts of the theory of practice with literature on doctoral study as reviewed in the previous chapter. The table further explains the application of its major concepts and how these inform the various questions in the interview protocol, which also correlates with the questions that this study intends to answer.



Table 3.1: Conceptual-analytical framework

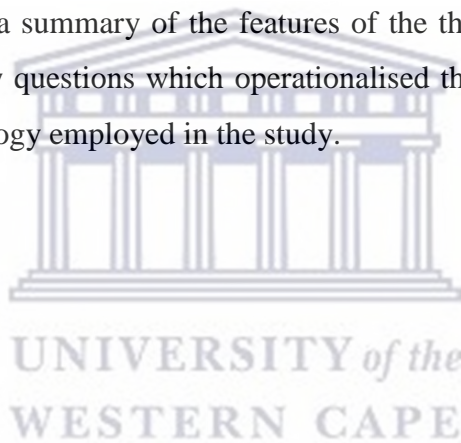
Bourdieu	Factors	Empirical Indicators (Chapter 2)	Interview questions
Habitus			
Personal factors	Bio-social factors	Age/maturity and marital status/family responsibility	1(a) Can you tell me about yourself? 1(b) What motivated you to enrol in your doctoral study? 2 Demographics and academic variables table. 2(b) What are the reasons for your choice of this Ph.D. program? 3(a) Could you tell me about your family background? 3(b) What role has your family played in your doctoral education? 3(c) What kind of support do you get from your family, relatives and friends? 3(d) Are there role models or individuals who you can regard as mentors in the family? 3(e) Do you normally seek support from your family when you are in rough moments? 3(f) Can you describe some family challenges you may have experienced since you started?
	Psychological factors	Motivation, persistence, determination, academic self-esteem, student disposition (adjustment and problem-solving attitude)	
Socio-cultural factors	Family factors	Level of education of family members, neighbourhood	
	Cultural background	Home language, cultural beliefs, values and practices (including value of education)	
Academic factors		Peer group influence/Role models	
Cultural capital			
Socio-cultural factors	Family factors	Level of education of family members, neighbourhood	1(c) How did you get to know and understand what the Ph.D. study entails? 2(b) What are the reasons for your choice of this Ph.D. programme? 3(a) Could you tell me about your family background? 3(b) What role has your family played in your doctoral education? 3(c) What kind of support do you get from your family, relatives and friends? 3(d) Are there role models or individuals who you can regard as mentors in the family? 5.1(a) In your own opinion, were you adequately prepared for the Ph.D. studies?
	Social status: social network	Socio-economic status of family, occupations of family members	
	Cultural background	Home language, cultural beliefs, values and practices (including value of education)	
Academic factors		Prior learning, relevant knowledge and skills	
		Prior academic workplace and research experience	
		Information, resources and tools	
		Peer group influence/Role models	
Field			
Institutional factors	Nature of doctoral programme		2(a) What challenges have you encountered before getting to this stage in your Ph.D.? 2(c) Can you share with me your Ph.D. journey so far? 4(a) Are you aware of available doctoral funding or scholarship? 4(b) Did you start your Ph.D. studies having a bursary? 5.2(a) Can you tell me about supervision of your Ph.D. studies? 5.2(b) If given the opportunity, would you like to change your supervisor? 5.3(a) Are there issues that border on institutional cultural practice that pose a challenge to your studies? 5.3(b) Does the dissemination of information, such as doctoral workshop, seminars and availability of funds, affect your studies? 5.4(a) Does the university provide adequate human and material resources needed for your work? 5.4(c) What other problems are you experiencing while doing your Ph.D. in this institution?
	Research environment and research project: doctoral education guidelines and expectations		
	Information communication, resources and facilities		
	Research support		
	Supervisor and supervision process		
	Funding		
	Institutional culture and practices		
Practices			
Institutional strategies		5.4(b) What would you like to see introduced in the institution, faculty or department for doctoral studies?	
Individual strategies		So what do you do? (follow-up questions as challenges are mentioned)	

3.5 Summary of the chapter

This chapter set out to outline the conceptual framework that was used to guide this study. It began with an elaboration of Bourdieu's theory of practice, detailing its meaning, major features (namely habitus, cultural capital, field and practice), key assumptions, and implications. Moreover, it examined doctoral studies as a 'field' in the context of Bourdieu's theory. It also briefly revisited the literature reviewed in Chapter 2, with a special emphasis on the empirical indicators of the concepts as they relate to the factors that are barriers.

The chapter discusses Bourdieu's theory of practice, at length, elaborating on its concepts and, in the process, linking them to an overview of the way students interact with the existing challenges in the social space (the university and doctoral study) (see Table 3.1). Bourdieu's concepts of habitus, cultural capital and field, as shown in Tables 2.1 and 3.1, have informed the study's conceptual framework to operationalise and empirically address the research questions.

Finally, the chapter presented a summary of the features of the theory of practice in Table 3.1 above along with the interview questions which operationalised the concepts. The next chapter presents the research methodology employed in the study.



CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

The chapter presents a comprehensive discussion of the methodological framework that underpins this study, including the research design, research strategy as well as the research techniques applicable in answering the research questions. The chapter also discusses the research setting of this investigation and getting access into the research setting of the research participants.

Following closely are the description and discussion of the data collection procedure and instruments used, the data collected as well as the techniques employed in the data analysis and interpretation, and ethical procedures. The rationale for these choices is also presented to justify their usage and usefulness. Thus, in this study the methodological process aims to present the 'chain of evidence' collected during the data collection process to justify the case study report (Yin, 2009: 122). The chapter ends with a discussion of validity and reliability issues.

4.2 Methodological framework of the study

The methodological framework of every research is guided by philosophical assumptions that determine the framework of the research study (Babbie, Mouton, Vorster & Prozesky, 2007). The underpinning methodology paradigm guiding this study is interpretive, as emphasised by the constructivist school of thought. In consideration of the method to use for this study, several other research philosophical underpinnings came to mind, but the epistemological paradigm is most appropriate for this study. Some scholars have presented three major epistemological positions, and these include positivism, constructivism and critical theory (Henning, 2004; Babbie et al., 2007). These epistemological positions are associated with certain verbs that depict their theoretical positions. From the positivist standpoint, verbs such as 'predict' and 'test' are key verbs used in such empirical studies, which aim at cause and effect through scientific analysis and thus uses a quantitative methodological paradigm (Henning, 2004). Critical theory associates with key verbs such as 'improve' and 'change', with an intention to bring about change through a participatory action paradigm, while the constructivist uses key verbs like 'understand' and 'construct' (Henning, 2004; Blanche, Blanche, Durrheim & Painter, 2006). From the constructivist standpoint, the study aims to gain an understanding of the social phenomenon of practice from participants' perspectives and through the meanings they assign to their experiences and the phenomenon (Neuman, 2013; Babbie, et.al, 2007). Thus, the methodology of this study is

framed by the constructivist paradigm, which allows the researcher to interpret the meaning participants give to their experiences.

4.2.1 Constructivism: Epistemological standpoint of this study

This section addresses the issue of theoretical and philosophical assumptions that underpin this study. The branch of philosophy that deals with the source of knowledge to be generated in the field of doctoral study, as in this study, is the constructivism paradigm, otherwise known as naturalistic inquiry. This is because this study aims at the reconstruction of previously held constructions of practices and is guided by assumptions considered as subjective to create knowledge through interaction with the respondents as an investigator (Lincoln & Guba, 1985; Blanche et al., 2006). In other words, I, as the researcher, functions as co-creator of meaning by understanding participants' perspectives and interpreting them accordingly. The interactions enable me to explore and interpret the specific realities such as practices adopted by the participants to deal with barriers in the context of their reality, which is the focus of this study (Denzin & Lincoln, 2005).

Following the principle of constructivism, there is no distinction between the researcher and the subject of the researched phenomenon. As a result, the application of the concepts of habitus and cultural capital, from the theoretical perspective of the practice theory and philosophical position of the researcher, determine the results of the inquiry, as the findings of these inquiries are construed socially (Mir & Watson, 2000). In other words, the use of the constructivism approach is to emphasise the participants' lived experiences and the meaning-making processes. These meanings are negotiated, both socially and historically, by individuals and occur through varied interactions with others as well as through various historical and cultural norms and values (Creswell, 2014). More specifically, Creswell (2014: 8) suggests that 'constructivist researchers often address the "processes" of interaction among individuals. They also focus on the specific contexts in which people live and work in order to understand the historical and cultural settings of the participants. In addition, using the social constructivist paradigm also aligns with the view that social life is fluid, unfixed and constructed by social interactions and practices informed through the relationship of the structure of fields, or social worlds, and the agency of those within it (Reay, 2004).

Using this paradigm implies that doctoral students, who are the actors in this study, construct the experiences they encounter as barriers or enhancers and engage in ways they consider appropriate to manage the barriers at times as informed by their own social world. They also, in particular circumstances, make meaning out of such encounters through social interactions. Therefore, the

use of social constructivism becomes relevant to understanding how such realities are constructed through shared systems of meaning from the social constructivist perspective (Denzin & Lincoln, 2005; Charmaz, 2006; Burr, 2015). This suggests that knowledge construction is relative as individuals competent of interpreting the reality of the world construct knowledge differently, thus resulting in multiple constructions of different types of knowledge that exist together, regardless of non-uniformity in agreement of the various interpretations given (Guba & Lincoln, 1994). In other words, more complex and deeper interpretations of realities are made as more information and meanings are unfolded from close interaction with the doctoral students and the practice phenomenon of achieving completion (Guba & Lincoln, 1994). This encourages an in-depth investigation of such social phenomenon in order to get rich and detailed information.

Consequently, the constructivists use two criteria to measure the credibility and transferability of research findings, and these are trustworthiness and authenticity (Guba & Lincoln, 1994; Morrow, 2005). This is discussed later in detail in this chapter (see section 4.7) to inform how this research has been conducted methodologically and the way data were collected and analysed.

4.3 Research design

This study uses a qualitative research design, as a strategic framework, a plan, and a general approach as a valid and effective methodology to execute and implement the research process as well as provide answers for the research questions. In scientific research of this nature, using a qualitative research design specifies the methods and procedures employed to generate a better insight into the factors that hinder African doctoral students' progress and completion from a scientific perspective at the University of the Western Cape (UWC). In other words, the research design serves as a guide to address research problems, with a specific focus on the research aim, procedure for selection of each participant, and where and how data was collected that ensures results are judged as credible and trustworthy as demonstrated in the conduct of the research project (McMillan & Schumacher, 2001; Babbie & Mouton, 2001; Ritchie & Lewis, 2003).

This section outlines the relationship of case study research to theory in the study's application of Bourdieu's concepts of habitus and cultural capital and the students' engagement, as elaborated in Chapter 3. More specifically, the section briefly considers the suitability of a single case study design for this study and the matter of case selection. Lastly, it discusses the specific methods employed in the empirical part of this study that seeks to identify the habitual acts and cultural capital of the students, the nature of the barriers they encounter, and their practices embodied as assets.

4.3.1 Case study strategy

The case study design of the study follows a qualitative inquiry nature that seeks to understand African doctoral students' progress and attainment of study completion at UWC from a socio-cultural point of view. Since completion of doctoral study is a contemporary issue, a case study design is considered as most accurate and appropriate, given the features and limitations of a case in the research process (Gerring, 2007; Yin, 2009).

With the major characteristics identified as being particularistic, descriptive, heuristic, and inductive (Merriam, 2009), a case study enables one to refer to one event, process or situation such as the doctoral process, as well as the rich and widespread set of details relating to the phenomena-practices of doctoral students, which is the focus of this study. Each of the two features (process and phenomenon) is experiential because they advance understanding of the phenomena informed by an inductive form of reasoning used to determine generalisations or concepts that emerge from the data. Therefore, as a case study, this study involves the use of an in-depth interview methodology that produces 'thick descriptions' of the students' practices and the phenomenon under study (Yin, 2009). Such 'thick descriptions' give the researcher access to multiple interpretations of the data (Walsham, 1995b).

Gerring (2007), adding to the debate around the major feature of qualitative research design, notes that the kind of evidence involved in this kind of research is the difficulty of associating a case study with any clear-cut definition. Hence, the strategy and tools utilised in this design are unique and determined by the nature of the research project as well as the researcher involved. As a result, the most common feature of the design is the focus on answering the why, what and how questions, which are dominant in any in-depth investigation (Gerring, 2007).

'A case may be created out of any phenomenon so long as it has identifiable boundaries and comprises the primary object of an inference' (Gerring, 2007: 19).

In other words, the experience and completion attempt of each student are investigated in detail, giving an individual researcher the opportunity to get in-depth information within the available limited time as well as to target a product in the case to inform practice (Freebody, 2003).

Case study research recognises social truths as multifaceted and entrenched as it examines 'discrepancies between participants' perceptions' (Basit, 2010: 20), which amount to a 'multiplicity of perspectives' (Lewis, 2003, in Ritchie et al., 2003: 52) as the experiences of each participant varies. Basit (2010: 20) further indicates that the 'rich description' of a case study

includes the ‘details of the lived experiences of specific cases or individuals and offers an understanding of how individuals perceive the various phenomena in the social world and their effects on themselves’.

With the case study approach, there is an indication that each specific case can be considered on its own merit and shows an element of in-depth examination and interpretation of social phenomena like participants’ habitual acts, while identifying their cultural capital and challenging experiences, all of which informs the variation in the ways each selected participant responds. Within the single case study used in this study, participants vary as to student status such as self-sponsored/sponsored, places of origin such as local and international, personal background in terms of level of exposure to research, and cultural capital as well as family background. Thus, the case study approach as an empirical inquiry is appropriate for investigating the completion of doctoral study within a real-life context of a South African university, since the study requires answers to specific research questions which seek a range of different evidences from the case settings, where the boundaries between phenomenon and context are not clearly defined (Gillham, 2000; Yin, 2009; Wedawatta, Ingirige & Amaratunga, 2011). This suggests that the case study approach is important in situations where contextual conditions of the event being studied are critical and where the researcher has no control over the unfolding events (Wedawatta et al., 2011).

4.3.1.1 Relevance of the case study design

The case study is a preferred research design, considering the interpretive position adopted in this research and the nature of the research questions, the extent of control an investigator has over actual behavioural events, and the degree of focus on contemporary or historical events (Yin, 2009). More specifically, in this study the case study design was considered for the following reasons: First, it provides a systematic way of data collection and use of multiple data collection techniques, and it provides a variety of participant perspectives. Secondly, the case study design is most commonly used in studies with a focus on doctoral students’ experiences and doctoral study.

The case study as a research strategy in a doctoral study of this nature seeks to investigate doctoral students’ adoption of practices with the aim of achieving completion of their studies in order to situate themselves within and be relevant in the field of doctoral education. Lewis (2003: 52) points out that the primary defining feature of a case study is that of being a ‘multiplicity of perspectives which are rooted in a specific context’. In other words, the face-to-face, semi-structured in-depth interviews used for data collection in this study constitute a major feature of

case study design, hence this design was chosen for this study over others. Secondly, one defining characteristics of a case study is the emphasis on a case which is the object of the study (Johansson, 2003 in Mills, Harrison, Franklin & Birks, 2017), which can be an individual unit or persons such as doctoral students or other units such as a family, a community or a country (Leedy & Ormrod, 2005; Babbie et al., 2007; Creswell, 2013). The case could also be a process comprising several steps/procedures that form sequential activities such as the curriculum process of an academic programme. In this study, the case study focuses on the object of study, doctoral students, as the case. The design further elaborates, describes, informs and makes explicit the doctoral students' practices in the process of the programme (Creswell, 2013). Thirdly, the case study approach also ensures the validity and reliability of the research and conclusions drawn at the end of the project, which is why this research design is ideal for use in education over and above other research designs such as action research, grounded theory, ethnography, archival research, cross sectional studies, longitudinal studies and participative enquiry (Collis & Hussey, 2009; Saunders & Lewis, 2012).

Stake (2005, in Grandy, 2010) identifies three types of case studies, namely intrinsic, instrumental and collective. This case study is identified as intrinsic because the study intends to improve our understanding of doctoral students' practices (Baxter & Jack, 2008). Identifying practice as informed by the variation in the students' experiences and the way they respond is with an intention to better understand the case (African doctoral students) for purpose of documentation. It is not undertaken primarily to illustrate traits or problems, or to understand some form of construct or generic phenomenon, or to build theory, although this could be an option (Stake, 1995 in Grandy, 2010), but because in all its particularity and normality, the case is of interest to us. From this study, inference can be drawn between the practices of these students along several axes that include origin (national and international African students), sponsored/non-sponsored students, and their culturally and socially endowed family backgrounds. This also enables us to identify similarities and differences among the participants about their various experiences in a bid to understand how they inform practice, given their intrinsic resources, background and experiences. Although the case study design is the most advantageous for the purpose of this study, based on its strengths as discussed above, scholars have highlighted the limitations of the case study approach.

The issue of the inability to generalise research findings from a case study research is a major limitation. Cohen, Manion and Morrison (2011) note that case studies are prone to problems of observer bias. Although an effort is made to address the issue of reflexivity, difficulties are

experienced in cross-checking findings and/or results of the interpretation, while the meaning the researcher ascribed to the findings may be biased, subjective, personal and selective. Bias in research, though addressed by the researcher, may not be avoided during the research process, even though it could occur as ‘unaffordable error’. Pannuci and Wilkens (2010) argue that bias is a form of error within the design and the study process such as the data collection procedure, recording and/or analysis and interpretation of results. To ensure this is averted in the current study, the questions were aligned with the research aim and the voice of participants was emphasised by recording the interviews and transcribing their voices into text and using these within context. Contrarily, other scholars argue that generalisation is not needful; they emphasise the existence of very meaningful empirical studies that makes generalisation irrelevant, especially when the researcher provides rich and detailed descriptions of the contexts of the study for easy judgements and results are transferable (Ary, Jacobs, Sorensen & Razavieh, 2010). Further, Creswell (2013) notes that data collection in a case study research design is extensive, drawing on other sources of data and collection techniques such as artefacts, audio-visual materials, documents or archival records, interviews and observations. For this study, the researcher engaged participants in a face-to-face interview that lasted a minimum of 45 minutes with each participant within seven months (November 2013-May 2014) on the research site (see Section 4.4.1).

4.3.2 Selection of case and participants

Given the unique nature of South African universities from a historical perspective, a university that represents former historically disadvantaged universities (HDUs) was chosen for the research setting from which the selection of participants was made. With due consideration to accessibility to university records, the researcher chose to carry out this investigation in the university where she is currently a doctoral student and where she received maximum assistance as the study contributes to the improvement of doctoral study at the university. This made it possible to capture the nature of barriers and strategies adopted by this category of students at the university from an insider perspective.

The selection of UWC as research site was based on several criteria. Firstly, since the researcher is a student of UWC there is the advantage of being an insider, who is familiar with the environment and fellow doctoral students, and has access to administrative records which would have been difficult to access as an outside student researching away from the university housing the study. Secondly, the drive for this research was born out of curiosity arising from an observation made during three consecutive graduation ceremonies the researcher attended as a Master’s student. The researcher observed that very few students attained graduation among the

African students, particularly the local African students, and this served as a motivation to examine doctoral graduation in South Africa. This was one of the factors that guided the selection of the participants for this study. The observation the researcher made at the graduation ceremonies formed the focus of this study: African students' experiences and practices. There is also an element of convenience (see Blanche et al., 2006), as the researcher could negotiate access to resources informally prior to the commencement of this research project. In the case of access to the students, there was an existing network in terms of contact persons who were available and willing to assist with contact details of relevant participants for this study.

The selection of participants was done at two levels, namely at faculty level and student level. Merriam (2009) points out that sampling involves the selection at meso and micro levels, which, for this study, was the research site and participants from various relevant faculties/departments of the university housing this study (UWC). This study draws on African full-time doctoral students across those faculties in UWC that have consistently produced graduates in doctoral studies within the last five years. In addition, the number of students who graduated by each faculty/department also determined the number of participants to be selected for this study.

Globally, the doctoral completion rate is stated to be highest in Science faculties, followed by Arts and Humanities faculties (Abiddin, & Ismail, 2011), with students completing their studies within an expected period (Hernandez, 2005; Elgar, 2003; Wright & Cochrane, 2000). Therefore, the choice of the faculties and number of participants selected has been informed by literature, even though the emphasis in this study is on a specific race/population group. University documents, such as graduation records, were also consulted to confirm departments/faculties that fall within the interest group of this study in the last six years (2008-2013), as shown below in Table 4.1. This study draws on African full-time doctoral students across faculties at UWC that have consistently produced African doctoral graduates. Sporadic graduation of African doctoral graduates may influence doctoral students' enrolment negatively. Table 4.2 shows the actual number of Ph.Ds. awarded.

Table 4.1: Faculties' graduation record of doctoral graduates from 2008 to 2013 at UWC

Faculties	2008	2009	2010	2011	2012	2013	Grand Total
Arts	2	4	16	18	14	19	73
CHS	2	3	7	3	7	13	35
Education	5	3	8	7	10	9	42
EMS	7	4	2	5	3	5	26
Law	2	3	3	3	7	10	28
Dentistry		1		1	2	3	7
Science	25	30	23	46	33	52	209

Source: Student Administration graduation record as at 2014

Table 4.2: Total number of doctoral graduates from 2008 to 2013 at UWC

Faculties	EMS	Arts	Science	Education	Dentistry	Law	CHS	Grand Total
No. of females	2	12	26	7	NIL	6	6	59
No. of males	10	20	82	9	1	10	4	136
Total	12	32	108	16	1	16	10	195
Actual No. of Ph.Ds. awarded	26	73	209	42	7	28	35	420

Source: Student Administration graduation record as at 2014

Key for Tables 4.1 and 4.2 above: Arts: Faculty of Arts; EMS: Economics and Management Science Faculty; CHS: Community of Health Science Faculty

Out of the total 420 doctoral graduates produced, 195 were African students, which is less than half of the total population of doctoral graduates from 2008 to 2013 (see Table 4.2 above).

The study focused on those faculties with consistently good doctoral graduation records and involved students who voluntarily indicated interest to participate. Various doctoral students in

the faculties indicated in Table 4.1 above and within the specified population group were involved (see Appendix 8). These faculties therefore included Education, EMS, Community and Health Sciences, Natural Sciences, Arts, and Law, with Dentistry having been excluded. This indicates that there is representation of participants in the study from faculties that have at least produced one African doctoral student per year in the last six years.

At the micro level of selection of participants, data collection aims to answer the questions this study seeks to address. Therefore, the study elicited information from participants drawn from the existing 281 full-time African doctoral students' population of UWC from various relevant faculties/departments (see Table 4.3 below). This implies that the study employed a purposeful sampling technique to select participants for the data collection process. Patton (2002) describes purposive sampling 'as a non-random method of sampling that involves the researcher selecting the much-needed informants who are considered as "information-rich" in the case to enhance in-depth study of the phenomenon'. Thus, studying information-rich cases is an important benefit of purposeful sampling (or selection of participants) as it yields in-depth understandings rather than empirical generalisations (Patton, 2002). The purposeful sampling involved the selection according to population group and stage of their doctoral journey. At first, flyers were distributed announcing the study, its focus and participants of interest (see Appendix 3). This was followed up by personal contact. The students selected must have had their first year of doctoral experience as most doctoral students experience challenges in adjusting to their new life of doctoral studies (Ali & Kohun, 2006). A focus on individual students to provide contextual information about their encounter and responses emphasises the use of an in-depth interview strategy. This facilitates obtaining a rich and in-depth analysis of a case or cases which in this study is considered as situational (Creswell, 2014).

From the university records in the administrative unit, raw data were obtained and then refined, and this was compared with data collected from the Information System Management Unit of UWC. The faculties' graduation record indicated that African doctoral students' population varies according to discipline, with the science discipline having the largest population of doctoral students (see Table 4.1). Table 4.3 below shows the population spread according to students' mode of study that is either part-time or full-time study and gender of all African doctoral students registered in 2013. Although Table 4.3 reflects the population of the part-time students, the study focus remains on the population of full-time students.

Table 4.3: Total number of African doctoral graduates from 2008 to 2013 in UWC per nationality, gender and mode of study

Nationality of students	Gender		Full-time		Part-time		Total full-time and part-time	Total only full-time
	F	M	F	M	F	M		
S. Africans	50	37	33	27	17	10	87	60
African Int.	90	181	70	151	20	30	271	221
Total	140	218	103	178	37	40	358	281

Source: Student Administration graduation record as at 2014

Of the 281 full-time students, 60 were South Africans (local students), while 221 were African international students. These students represent a spread across all faculties/departments at the university, except for the Dentistry Faculty where there were no registered African doctoral students in 2013.

Furthermore, the number of participants selected for this study (18 in total) is relatively small compared to the number of full-time African students in the doctoral programme as at the time of data collection in 2013. Out of 681 doctoral students in the system as at October 2013 to May 2014, only 358 were African (local and international) students registered, with 281, i.e. just over that half, registered as full-time students.

4.3.2.1. Criteria for selection of participants

With the focus of this study on students' practices with regard to their experiences, which could vary according to faculty or area of discipline, the selection ensured a spread across faculties/departments (except for Dentistry that had no registered African doctoral students in year of data collection), for the sake of representivity. Table 4.4 below shows the population spread of these students according to faculty and gender in the same year of registration (2013).

Table 4.4: Population spread of full-time African doctoral students registered in 2013 in UWC

Students' Faculty, Gender and Nationality	Arts		CHS		ED		EMS		Law		Science		Dentistry		Total
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	
S. Africans	4	9	2	1	3	2	1	3	2	1	22	19	0	0	69
Africans Int	12	25	15	17	8	7	3	17	7	17	22	60	0	2	212
Total	16	34	17	18	11	9	4	20	9	18	44	79	0	2	281
Grand Total	50		35		20		24		27		123		2		281

Source: Student Administration graduation record as at 2014

Key for Table 4.4 above: Arts: Faculty of Arts; CHS: Community of Health Science Faculty; ED: Education Faculty; EMS: Economics and Management Science Faculty

Out of the 281 registered students, the study elicited information from 18 African full-time doctoral students, comprising 12 males and 6 females, using the specific criteria. First, students must belong to a faculty/department that has graduated African doctoral students within close successions. To identify these students, the record from the Higher Education Management Information System Unit of the university (HEMIS, UWC) was used to obtain raw data on age and gender, race, nationality, year of first enrolment and current year of enrolment, year of graduation, and faculty/department of study. In Appendix 8 the personal details of the students in this study are presented in tabular form. In addition, the emphasis was also on the selection of participants by race as the focus is on African students (local and international). Participants were given an opportunity to confirm their race/population group and nationality at the point of first contact of the data collection process.

The study duration was another criterion. Golde (2000) and Bowen and Rudenstine (2014) argue that about one third of the students drop out of the doctoral programmes at different stages of the process, such as later year before candidacy and during the dissertation phase. Witte and James (1998) reiterate that the first-year experience often leads to students doubting the appropriateness of their decision to pursue a doctorate, but as they experience challenges in the adjustment, they adapt to cope with the new doctoral study life (Ali & Kohun, 2006). This period of the programme required the most difficult adjustment, which is even more challenging for first-generation

students (Gardner, 2013; Holley & Gardner, 2012). Guided by literature, the selection focused on students' duration in the programme. Therefore, the criterion was to ensure that participants must have been in the system for a minimum of one year in order to be selected. According to the university doctoral guidelines, a doctoral student is expected to produce a research proposal within a maximum period of six months after registration into the programme. Doctoral students in the system during the given period are expected to have made some significant progress. The students who met the criteria were enlisted from the HEMIS, UWC record and their status was confirmed as having passed the research proposal stage by the various faculty postgraduate programme coordinators at UWC. Before the data collection process commenced, participants were also asked, by means of interviews as the research instrument, to mention the stage of their doctoral study. This was helpful as it enabled the enlisting of students at different stages after the proposal stage, such as the reporting stage and the final phase (final draft of their thesis). This was another way of ensuring that relevant participants were enlisted.

Enlisting participants who met the criteria for the study selection was very important. These participants served as the object of the case and unit of analysis and are rich in fresh experiences in respect to barriers they were encountering and how they ensured advancement or progress in their studies. Only participants who indicated interest and availability were involved in the interview stage. The final selection also excluded students who had not yet completed the proposal stage.

4.3.3 Demographic data of participants

For the purpose of this study, the personal details of the participants are with regard to gender, age, birth position, marital status, nationality, year of initial registration, parental occupation, and siblings' levels of academic qualification, as reflected in the figures below. The study used six factors expressed as independent variables to capture the students' demography. These independent variables include gender, age, marital status, nationality, and enrolment year.

The description of participants appear in Tables 4.1 to 4.4 and Appendix 8 and are elaborated here. The participants involved in the face-to-face interviews were 18 full-time African doctoral students. Six of the student participants were local African doctoral students, while the others were from other African countries such as Malawi, Zambia, Zimbabwe, Tanzania, Nigeria, Uganda, Burkina-Faso, Ethiopia and Cameroun. Among the international students half are East Africans and half West Africans, indicating an even spread of participants' nationality (for reasons of anonymity the nationality record has been blocked out in Appendix 8). One third were females and the remaining two thirds were males. The age ranges of the participants were between 29 to

47 years, with two thirds being between 35 and 44 years, while one quarter were between 29 and 34 years and only two were above 45 years old. Half of the student participants were married while the other half were single or co-habiting. Table 4.1 also provides information on participants' enrolment year, with half of the total number of participants already in their 4th year of enrolment, three in their 3rd year, and six in their 2nd year of enrolment.

4.4 Method of data collection and research instruments

This study used face-to-face interviews as a research instrument to access mainly primary data. In addition, open-ended or semi-structured interviews were used to explore participants' perceptions of barriers and their practices. However, secondary data was also obtained from the university enrolment records and graduation programmes from the office of student administration, and the management and information system office of the university. This was to reconcile the data collected on doctoral students' records from the various faculties and postgraduate students' coordinators.

4.4.1 Interviews

Interviews with the participants consisted of interactive and conversational sessions. As a data gathering technique, interviews encourage informal conversation between two or more people and they allow participants to speak freely on their lived experiences and fall-out issues as the conversation unfolds (Seidman, 2019). Berg (2001) argues that interviews are designed as a data/information gathering tool using pre-determined questions to extract the opinion, thoughts and attitudes to inform better understanding of the study-related issues. There are some advantages in using the interview as a data collection instrument in this study.

Using an interview framework helps the researcher to improve understanding of the lived experiences of other people and how they make meanings out of such experiences (Seidman, 2019). It also allows the collection of in-depth information gathering, and free and flexible responses that cannot be obtained by other data collection tools (Seliger & Shohamy, 2013). This approach enabled re-entry to the field at different intervals to develop current categories and identify new concepts. In addition, this was coupled with the practice of interviewing from within the same bounded selection of participants, which facilitated the development of a trusting relationship between the participants and the researcher, thereby enhancing the quality of data generated. This is because semi-structured face-to-face interviews allow participants to give as much information as possible, without any constraints, on their background and experiences that impede their progress.

Protecting the identity of the participants encouraged unconstrained responses. This was achieved by means of self-selected pseudonyms (that is the opportunity for participants to choose their own pseudonym to protect their identity). For the sake of uniformity, the decision was made to use letter 'F' for female and 'M' for male, and linking these to numbers, in serial order and not according to how the interview took place. Transcribed copies of the recorded interviews were given to the students to verify in order to increase the authenticity of information gathered (Carlson, 2010).

This face-to-face interviewing tool, as against focus group and telephonic interviews, emphasises participants' voice, body language as well as their feelings, as it involves critical dialogue for deeper meaning than words could create or express (Finley, 2008 in Knowles & Cole, 2008). Although, the group interview tool has certain advantages, such as getting different perspectives in responses through multiple engagement and group dynamics that impact on the interview process (Leedy & Ormrod, 2005), this study required in-depth individual responses, for which the face-to-face interview tool was best suited.

The interviewer used a set of pre-determined questions or interview schedule, in a semi-structured manner, to which all participants responded. The use of semi-structured interviews helped the researcher to understand the thoughts, perceptions and struggles of the participants. The choice of semi-structured interviews was motivated by the researcher's intention of allowing participants to have enough room for variation of responses. In so doing, this interview type also gave context to the data, by creating a holistic picture of participants' experiences as the researcher got the opportunity to ask further follow-up/probing questions to achieve more meaning and clarity on some responses of the participants.

Using an interview schedule guided and helped the researcher to maintain focus and consistency and to ensure that all participants were asked the right questions based on the same loose set (Seidman, 2019), but there was no defined ordering of the questions. This enabled inferences to be drawn along similar lines of thoughts. The interview schedule comprised questions relevant to their experiences in order to identify the ones that influenced the initiation of and choice of practices they adopted.

4.4.1.1 The design of the interview schedule/guide

In using a semi-structured interview technique for data gathering process, an interview guide made up of questions related to the research questions of this study (see section 1.7 for the research questions) was designed before commencement of the process (see Appendix 6: Interview

schedule). This was to ensure consistency and to enable participants to respond to the appropriate questions during the data collection process (Seidman, 2019). The interview schedule was divided into two sections. Section A focused on participants' personal backgrounds and academic details to indicate their personal details, family backgrounds and academic trajectory before commencement of their doctoral study. Section B focused on institutional information to capture participants' experiences within the institution and the faculties, as well as in the doctoral programme, supervision process and ongoing research activities. This section was designed to enable the researcher to identify participants' challenges and the ways they managed the various experiences to overcome barriers to completion. The interview schedule was made up of open-ended items seeking an account of the experiences of participants on issues of resources and barriers to retention and progress.

The conceptual framework of the study derives from the theory of practice as expounded by Bourdieu. In this study, the concepts of habitus and cultural capital are used as an analytical lens to investigate and understand the factors impacting on completion as empirical indicators.

After designing the interview schedule, it was tested for validity by conducting preliminary interviews to ascertain if the questions were clear enough, using five students within the same selection criteria but that were not part of the final interviewed selection of participants. Questions that lacked clarity were rephrased while others were added, following feedback from the pilot study, to avoid ambiguous responses in subsequent interviews. On completion of the pilot study, the researcher drew up an action plan for the execution of the interview process. The action plan included setting of timeframes, putting together equipment needed for the process such as digital recorder and battery for the recorder, and setting up appointments and a venue for the interviews via emails. The potential participants had been contacted much earlier to ascertain their interest, willingness and availability. Participants received flyers announcing the research project in broad terms. The researcher also made personal contact with prospective participants and emailed them to encourage their participation but also to ensure they were not coaxed into being involved. After the compilation of the participants list, emails were sent out to confirm appointment dates for the interviews and phone calls were made as immediate reminders on the given appointment dates.

4.4.1.2 The interview process

The interviews were conducted at the participants own chosen time and venue of preference, which was either in their offices on campus or their rooms in the university residence for postgraduate students. The choice of venues or settings preserved confidentiality and increased

the subjects' confidence in the research process (Leedy & Ormrod, 2005; Blanche et al., 2006; Smith & Crawford, 2007).

Before the interview commenced the researcher had met the participant. She introduced herself again at the interview and reminded the participant of the purpose of the meeting. Participants were given a consent form to complete and assurance of confidentiality with which the data they provided would be treated, in that their names were not going to be used or mentioned to third parties. They were also made aware of the possibility of withdrawal from the interview process whenever they so desired. These steps assured the participants and secured their willingness to be interviewed and recorded on a digital voice recorder as well as on paper. As outlined earlier, the interviews were carried out face-to-face in October 2013 to May 2014. The interviews lasted between one hour to one and half hours each.

The researcher clarified any issues with the participant before ending each interview session; one such issue was getting consent to recall the participant for more detail and clarity if the need arises. Furthermore, trust and confidentiality had to be established; so the researcher once again assured the participants that whatever had been said was going to be confidentially kept by the researcher. This procedure and process for data collection was used to ensure data validity and reliability, which in qualitative research is considered as credibility, transferability, dependability and confirmability to ensure the trustworthiness of the qualitative data (Shenton, 2004).

4.4.1.3. The researcher's role

This study investigated ways of maintaining retention and completion, based on the participants' experiences and how they interpret these experiences to inform the ways they navigate their studies. It was necessary to establish an interactional relationship between the object of the study and the researcher, to build trust and sustain participants' interest and also to ensure that all ethical considerations were upheld. The researcher avoided possible ethical issues and involved the participants' voices to demonstrate their own sense of making meaning from their experiences (Larkin, Watts & Clifton, 2006). In addition, as a doctoral student of the university used as the research field, the researcher functioned as an insider researcher and not a detached observer; the research process was conducted in an interactive and dialectical way, which implies direct involvement in the research process.

The documents used in this study were secondary sources of information, which included university enrolment records showing all personal details of all registered doctoral students for the year 2013. This university document was used for the sake of maintaining consistency and to gain

insight into the African doctoral students' journey, as well as to show the students' doctoral cohort. This could reflect the possible existence of any challenges, especially when the student record indicates elapsed duration of study. In addition, the document reflected students' consistent attributes as the registration record indicates the year of enrolment.

In addition, the researcher used the university's doctoral students' graduation records. These records served as a guide to identify faculties that graduated doctoral candidates, most especially African doctoral graduates. However, accessing these documents from the university higher education management information system (HEMIS) was challenging. This was because of time constraints as these details were uploaded with other confidential details which were not relevant to this study. These details had to be filtered before the researcher could access the needed document. Access to hard copies were obtained from the student administrative office, which needed to be verified with the soft/internet copy from the HEMIS office. The information gathered from these records is reflected in Tables 4.1, 4.2, 4.3 and 4.4.

Other documents used in this study included library books, research articles and online theses, using the internet search machine. These documents were easily accessible. The information gathered from these documents was useful in triangulation of participants' experiences as there was insufficient information on doctoral students' practices.

4.5 Data analysis and interpretation

Scholars have identified several techniques employed to analyse and interpret data in a qualitative study, a process that involves breaking down of data into little bits by codification or categorisation (Denscombe, 2014; Neuman, 2013; Ary et al., 2010). Some techniques for analysis and interpretation of data include thematic analysis, narrative analysis, discourse analysis and content analysis. In content analysis the focus is on the content of a written text developed from the recorded interviews to establish the frequency of the distribution of ideas, words and phrases (Boughey & Goodman, 1992; Neuman, 2013). However, the researcher opted for thematic analysis where the focus is on ensuring the logical arrangement of data to give clarity and coherence in the presentation of data following the interpretative analysis (see Blanche et al., 2006). This study on African students explores the forms of habitus and cultural capital, and the various experiences participants interpret as barriers to completion, as well as the ways of managing them. It draws on the habitus acts, experiences and advancement practices of African doctoral students at UWC, which implies participants drawing on their own meanings and presenting their stories in a personalised manner to depict how they perceived the experiences.

This requires reproducing their ideas, especially those related to the questions asked. The research thus identified themes significant to this study.

4.5.1 Categorisation of data

Guided by a qualitative analysis framework, the analysis and interpretation of data followed a thematic process that allowed the researcher, through an iterative process, to identify emerging themes and sub-themes, and to draw attention to the nature of the students' resources such as their habitus and cultural capital and the experiences that inform their practices and the barriers they encounter (Henning, 2004). For example, the data on participants' habitus was categorised under gender role as a theme, and cultural value of women as a sub-theme. Thus, Ryan and Bernard (2003) argue that the frequent occurrence of similar concepts in a text most likely create themes for discussion. The similarity of concepts occurring in the volume of data obtained for this study therefore informed the categorisation of the data. In other words, emphasis was placed on the content or contextual meaning of the participants' voice that was transcribed into text (Hsieh & Shannon, 2005) and the identified thematic code for interview data was used to create categories of major themes and sub-themes (Bazeley, & Jackson, 2013).

Following the detailed and voluminous data collected, the organisation and management of the raw data that was transcribed enabled the researcher to divide the text into analytical, meaningful and locatable sections which were later sorted and re-arranged (Stuckey, 2014). Achieving this re-arrangement required from the researcher to read thoroughly through the transcribed data to check for any incomplete or irrelevant information, and then to analyse the transcribed data thematically (Terre Blanche & Durrheim, 1999), while observing the required procedures to capture the emerging themes. According to Merriam (2009), the process of analysis is a back and forth movement that involves both deductive and inductive reasoning, and description and interpretation of the data, rendering the process interactive and iterative, as well as non-linear. In this study, the process of analysis necessitated multiple readings of the transcribed version of the participants' recorded information to make sense of the salient points and identify emerging themes that align with the aim and objectives of the study, and the theoretical underpinnings of this study as a front lens (Fereday & Mur-Cochrane, 2006). To check for incomplete, irrelevant and repeated information, and similarities in the data, the researcher made use of annotations, followed by grouping the data into meaningful sections and assigning a code to these. Merriam (2009) considers making annotations as relevant as this potentially establishes links between the data and possible answers to the research questions, and enables coding of the information. Creswell (2015: 156) describes data coding as

'the process of analysing qualitative text data by taking them apart to see what they yield before putting the data back together in a meaningful way'.

This suggests that data coding as a fundamental aspect of the analytical process facilitates the management, organisation, retrieval and interpretation of the data, based on which valid and relevant conclusions could be made. It also enabled the researcher to create a descriptive and multi-dimensional category as part of a preliminary framework for the analysis, given the method of inductive analysis employed. However, a major challenge encountered during data classification was the difficulty in grouping overlapping responses under different single response items that fall under more than one theme or sub-theme. Furthermore, transcription of data collected, and coding was carried out as data collection was still ongoing. As a result, data collection and analysis, particularly coding, were done side-by-side in an iterative way to improve and enrich subsequent data collected, which enabled a higher-level synthesis of the information. This iterative process of data collection and analysis guided the researcher in developing checks and revision of the data collection process.

Various stages and systematic steps were observed in the analysis and interpretation process: identifying, coding and categorisation, pulling data together to present the themes and patterns, and finally interpreting, verifying and drawing conclusions based on the data (Bogdan & Biklen, 2007). In other words, data was analysed to align with Yin's (2009) approach to data analysis, consisting of examining, organising and re-grouping the data into manageable units as available evidence from which to draw conclusions that are empirically based. Thus, the preparation, identification and coding of the data were done manually to capture the meaningful responses of the participants to the interview questions.

Furthermore, before putting together a written interpretation of the data, the researcher took the audio or the transcript of the audio back to the participants to what they had said and meant. In some cases, they gave additional information during this process which made the data and analysis richer. The researcher also relied on personal reflexivity to give validity to the interpretation of the transcribed recorded information from the interviews.

4.6 Ethics of research

This study was conducted by considering all possible principles and values of research ethics with an emphasis on what is just and right and of interest to me as the researcher, the participants and the research itself (Flick, 2009). The researcher obtained ethical clearance from the University Senate Research Committee in accordance with the UWC's ethical guidelines. The researcher

explained the purpose of the research clearly in writing, using an information page, and also verbally to all study participants, before the commencement of data collection. Permission was also sought from the heads responsible for academic affairs and research such as the Dean of Research in each of the selected faculties at the University and the postgraduate students' coordinators who also assisted me to reach the various doctoral students who make up the population of this study. The study was conducted with all the possible considerations of privacy, seeking participants' consent to participate in the study and signing the consent forms, as well as ensuring the confidentiality of the participants. Furthermore, the integrity of the participants was respected by allowing voluntary participation and withdrawal at any level of the study (Punch, 2009: 52). In addition, the intellectual property rights of others were respected and acknowledged by citing their work appropriately in the in-text references and reference list.

4.6.1 Trustworthiness of qualitative research instrument and data

Several scholars (Golafshani, 2003; Silverman, 2006) point out that the constructs of validity and reliability are rooted in a positivist perspective and therefore they are most often used in quantitative research. For the sake of credibility and trustworthiness, which Nieuwenhuis (2007) refers to as validity and reliability, the researcher ensured that the data collection was rich in the lived encounters of doctoral students and provided explanations for analysis. This was done using semi-structured opened questions during the interviews, for example: 'Can you tell me about yourself?'; 'Describe your experience in the doctoral journey so far.'

4.6.1.1 Quality and accuracy

To ensure the quality and accuracy of the qualitative findings of this study the researcher used strategies and criteria aimed at enhancing the trustworthiness of the research findings. One such strategy used was to maintain consistency in the questions by following the interview schedule and being attentive when the participants speak to ask the next and appropriate probing question.

Another strategy was to analyse the responses immediately after the interviews were concluded at the end of each day. This was helpful in understanding and accurately reflecting the flow of thought of the participants.

4.6.1.2 Trustworthiness

Trustworthiness is used as a measure of the quality of the data with a focus on ensuring that the both the data analysis and the data itself are believable and trustworthy. To ensure the trustworthiness of the instruments used the researcher piloted the interview schedule, to test the

ease of understanding the construct and content of the instrument. During the pilot exercise of the interview, the researcher engaged five students within the population who did not participate in the final selection of participants used for data collection. The trustworthiness of the instruments was further ensured by careful re-examination of the form and content of the interview schedule with the researcher's peers and supervisor. They gave constructive criticism on the content of the interview schedule in terms of volume, and the need to rephrase some questions and to correct the structure of some statements that expressed ambiguity. All these suggestions were attended to and ensured that the participants had the right perception of the questions and gave the right answers. Furthermore, the quality of the content was ensured by excluding irrelevant questions and questions which did not capture valid responses. As a result, doing a pilot study and subjecting the instrument to the critical eyes of peers and my supervisor enriched the content of the instrument.

The researcher ensured that the findings represented in this study are plausible, grounded in participants' original data, and seek correct interpretation; in other words, inferences are made by sticking as closely as possible to the data and the participants' original views (Macnee & McCabe, 2008). Probing questions were also used during the data gathering sessions to guide the interviewees to deeply reflect on their experiences, as the study deals with behaviour-seeking information (Shenton, 2004). In addition, the researcher went back to the participants after the interviews to listen together to the audio records of the interview and ensure that a participant's comments are correctly understood. This process of member-check was preferred by the participants rather than having to go through the lengthy transcripts with them.

For this study, the researcher facilitated 'the transferability of judgment by a potential user through "thick description" and purposeful sampling' (Bitsch, 2005: 85) by providing sufficient details of the fieldwork context to ascertain whether the prevailing environment is like another familiar environment and whether the findings can be applied justly without constraint to the other environment or setting (Shenton, 2004). Thus, this researcher provided a detailed description of the inquiry and selection of participants using purposive sampling to facilitate transferability of the inquiry.

In terms of dependability, the researcher ensured the stability of findings over time as participants were used to evaluate the findings, interpretation and recommendations of the study to make sure that these are all supported by the data received from the informants of the study (Cohen et al., 2011). This approach also ensures consistency in research findings, where the same research could be replicated using the same context, participants and methods (Shenton, 2004: 71).

Furthermore, confirmability in research is based on ensuring that the research findings are the ideas, words and experiences of the participants and not due to any preferences or bias of the researcher (Lincoln & Guba, 1985; Shenton, 2004). To ensure this, the researcher carried out a member-check whereby participants confirmed that what was in the transcript and written text were their own words.

4.7 Limitations

Limitations were experienced during the data collection process. Since the researcher, like the participants in the study, was also an African doctoral candidate, some informants were not comfortable to share their challenges and some had taken for granted or assumed that the researcher was aware of these challenges already. In order to manage this, the researcher had to refer back to the purposes of the study and explain that the main interest is not on challenges but on their practices to overcome such challenges. However, in some cases, the amount of information a participant gave was less and required more probing questions.

In addition, this research was limited to African doctoral students at UWC who mostly had no accommodation in university residences. This made it difficult to reach them since appointments with most of the participants had to be booked during working hours, with other official assignments contending for their time. The researcher managed this limitation by being always punctual with prior scheduled appointments to obviate any unnecessary inconvenience to participants; however, there were interviews which experienced interference with official duties of a participant and others that were time-constrained.

4.8 Summary of the chapter

This chapter comprehensively set out the research design and methodology relevant to answering the research questions of this study. It explored the research questions that informed the study and the research design which framed how the research was implemented. The case study design and an in-depth interview data collection method, using 18 participants from six faculties of the institution, provided a chain of evidence to buttress the detailed account of the procedural steps taken in a qualitative study of this nature. The secondary sources of data, such as the review of institutional documents, also played an important role as data collection sources. The in-depth interviews were conducted to explore the students' experiences so as to understand what worked for them, given their habitus and cultural capital, which varied according to their previous experiences and family backgrounds as doctoral students. The researcher endeavoured to follow the process of collecting, analysing and reporting data as prescribed and outlined by the

university's ethical considerations. The next chapter presents the findings that emerged from the analytical approach used to answer the research questions posed in Chapter 1.



CHAPTER 5: PRESENTATION AND DISCUSSION

5.1 Introduction

As outlined in Chapter 1 and restated in the previous chapters, the overall aim of this study is to explore doctoral students' practices in response to the question: *What are the practices of African doctoral students to attain completion of their doctoral study at the University of the Western Cape (UWC)?* In other words, this chapter presents the analysis and discussion of findings obtained from the in-depth interviews of participants in relation to the main and sub-research questions.

This chapter presents the findings in four broad sections. The first section presents a description of the background of the participants in this study in order to facilitate an understanding of the nature of participants involved in this study and to articulate the contextual factors related to the development of each participant's habitus and cultural capital. Participants are grouped into two categories according to their family socio-economic status, with emphasis on the level of family education and income. To avoid repetition in the presentation, the participants presented are selected from each category. The second broad section focuses on the first part of the sub-research question: *What is the habitus of African doctoral students doing doctoral study at UWC?* This centres on the findings based on the habitus of the participants from the analysis and the conceptual framework (see Table 3.1) to ascertain that the objective has been achieved. Section 5.4 focuses on the findings based on the sub-research question as stated above. This identifies the participants' cultural capital that functions as resources with which they enter into doctoral study. Section 5.5 focuses on the main attributes of the field, indicating the experiences of participants as they engage with these attributes in the doctoral process. This is followed by a summary of the chapter.

5.2 Background of participants

The background of participants involves relevant socio-demographic features such as gender, age, marital status, and family socio-economic status. The aim is to show how Bourdieu's categorisation can be applied to the grouping of students from a working-class family. Participants were classified into two categories in this study. Category 1 participants are from families where the parents have an irregular source of income and no formal education. Participants in this category include James, Andrew, John, Solomon, Jacob, Jehoram, Mary, Michael, and Reuben. Category 2 is made up of all the other participants who are from families where there is one parental source of income and most of their parents have some (but very little) formal education,

except for Martha's father who had tertiary education, i.e. Jude, Ruth, Peter, Paul, Naomi, Deborah, David, Martha and Abigail. Where there was some overlapping between the two categorisation, a decision was made on allocating the participant. The background details of the participants, as summarised in Tables 4.3 and 4.4 and Appendix 8, are discussed below.

John was in the final year of his study and about to submit his thesis for examination at the time he was interviewed. He is from a farming family in West Africa with both parents being uneducated. His father is gainfully employed as an unskilled employee while his mother is a stay-at-home mother who engages in petty trading. His father engaged him and his siblings in 'parental talk' and he learnt from those talks that he must never give up. He grew up to like undertaking difficult tasks that are uninteresting to most people to distinguish himself from the crowd. He feels it is the best way to go, coming from a poor family. He considers himself as a migrant because he is widely travelled within Africa, making friends and building his own research network, given his farming family background. All his siblings are educated, with him being the most educated as he engaged in doctoral study against the counsel of his friends, family and community. According to him, they believed studying takes too much time and he would not be able to give any financial support as long as he keeps studying. His case is a success story and worthy of emulation in his family and community as he had this to say:

I had many friends who dropped out when we were in high school at very early age and got jobs. At that time, I still remember, they were very happy with the money they were getting while I was still struggling to continue my study. But several years later, I realized that I made the right choice because they now want to come back to school.

(John, participant conversation, February 2014)

John's comments above indicate his satisfaction with his choice to continue with his studies. Despite the low and irregular income of his parents, and poor family background, he insisted on continuing his studies to get his doctorate. One may well ask: why such drive when it is not convenient financially? Another noteworthy attribute in his personal background is the fact that he identifies himself as a migrant, as do some other participants like Martha, Jehoram, Solomon, James, Andrew, Jacob, Mary, Michael, Reuben, Jude, Peter, and Abigail, who also migrated from other African countries to engage in doctoral study in South Africa, but are not as widely travelled as John, Peter and Jacob. Other participants like Paul, Naomi, Deborah, and David are also considered as migrants, as they migrated from other provinces within South Africa to the Western Cape Province to study.

Reuben was in the analysis and reporting stage of his research project, in his second year of study, when interviewed. He is also from a farming family, with both parents unemployed and getting an income from subsistence farming, which is an unpredictable and unreliable source of income. Reuben yielded to the counsel of his late brother who did a Master's programme that resulted in a remarkable change in his lifestyle. As a result, Reuben did a Master's degree and became a lecturer at a university in his home country. While working as a lecturer, he saw his colleagues enrol for doctoral studies, graduating and changing their title to 'Dr', followed by promotion that made them become his senior colleagues. He became very positive about enrolling in doctoral study, especially when he saw his colleagues being promoted and given academic recognition because of the new level of education and research output they had attained in accordance with his home university's practice and policy.

Jacob resumed the fourth year of his study to continue without supervision while awaiting a new supervisor. At the time of the interview, he got his proposal passed. Jacob is from a family background with all siblings at high levels of academic qualification, such as doctors and professors, except himself. His parents are uneducated. His parents do not have any permanent source of income as they depend on the goodwill of their children, relatives, neighbours and friends for their daily living in his country in East Africa. He has travelled widely, both within Africa and internationally. He engaged in research projects within and outside South Africa. While awaiting the replacement of a supervisor, he also engaged in conferences, seminars and a research workshop at other universities within South Africa. He has a wide research-related network. As a self-sponsored student, he engages in jobs to raise funds to take care of his family while he kept working on his research project without supervision support.

Martha was at the end of her third year when interviewed, but she had already spent many years on her research project back in her home country in West Africa, before coming to this institution for several reasons. One such reason was that the environment was not research friendly. She is a lecturer back in her home country. Her father had a first degree and her mother has a secondary school leaving certificate, equivalent to matric in South Africa. Her siblings are all educated at doctorate level. As a lecturer in her home country, apart from her personal motivation and the education level of her family, she had to engage in doctoral study to retain her position as a lecturer, in terms of her institution's policy requirements. She expressed some concern about supervision and facilities in her discipline. However, she persevered despite some wasted time before the facilities were in place. At the time of the interview, Martha communicated her intention

to finish timely. Martha conducted herself positively, although she was dissatisfied with her experiences thus far in the doctoral study programme.

Abigail was in the second year of her doctoral study when interviewed. Her father did not have university education and her mother had some form of qualification from a certificate course. Abigail is a lecturer at a university in her home country in Southern Africa. She was somewhat dissatisfied with the way African society regards and devalues the position of a woman/girl child in her context. She used her doctoral experience as an opportunity to express her scholarly ability as a lecturer who engages with research and supervision of Master's theses, and to get away from the dominating attitude of the man in her life. She believed that a woman can do whatever she chooses to do provided she has the ability to do it, and that nothing should be considered as meant for men only, especially pursuing doctoral study. She is an advocate of a society where African women are given an opportunity to be educated. She stated that she would complete her thesis the following year, which she did.

Ruth, a South African woman from a working-class family background, was in the fourth year of doctoral study when interviewed. Her mother, as an avid reader, influenced her reading habit by reading books to her and her siblings, and taking them to the library and the museum. Shortly before the interview, Ruth had received the news of her first paper having been published in a South African journal of education. It was during this excitement that the interview session took place. Ruth had just finalised her analysis chapters and was preparing the last chapter of her thesis for submission. Ruth acknowledged the lack of zeal for rigorous academic activities among her fellow students and lamented the fact that a large number of South African students who completed their undergraduate studies failed to return for postgraduate and doctoral study. She expressed appreciation for her mentor who encouraged her to enrol for postgraduate study and she enjoys what she is doing and being in academia. She believes that her engagement in academia will help her achieve greatly on all fronts of life, especially because it will change her social status by the time she completes her doctoral study. She acknowledges the lack of confidence she has in herself, which was identified by her mentor who is currently helping her to think positively about herself.

Jude was in his third year of doctoral study when interviewed. He grew up in West Africa in a family that highly values education and gave him the opportunity to start schooling at a very young age. As a child, he personally loved going to school and wearing school uniform, as did his elder siblings. This influenced his thinking as he considers academic 'wealth' to supersede material wealth and commanding greater social respect. For Jude, studying, especially doing doctoral

study, is a matter of self-actualisation and makes him happy. It gives him satisfaction and an identity. He had a strong desire to remain focused on and achieve his goal. His family background is characterised by highly educated siblings who already hold doctorates, whereas his parents were uneducated. Jude was noticeably satisfied with his engagement with doctoral study.

The above overview of participants' backgrounds covers just over two thirds of the total number of participants. These participants are mostly from low socio-economic backgrounds, which Bourdieu (1974) refers to as working-class, characterised by low academic achievement. Although Martha, Jacob, Ruth and Jude have siblings who are highly educated, Bourdieu's focus is on parental education. It is therefore important to note that the parents of these participants are not educated. What seems to define them is that they have highly educated siblings and that education is, for the most part, valued highly in their families.

In concluding this section, we can see that some participants from both category 1 and category 2 are first-generation doctoral candidates; these include Peter, James, Andrew, John, Solomon, Paul, Naomi, Jehoram, Mary, Michael, Deborah, Reuben and Abigail. More than half of these participants are from families with an irregular source of income and no parental education. Other participants like Jacob, David, Jude, Ruth and Martha had siblings who are well educated, with some having a doctorate. These participants' families had one parental source of income and no parental education, except for Martha, whose father had a first degree, but whose mother is uneducated, while Naomi's mother was a nursing assistant, and Abigail's mother did a certificate course. Other issues raised here is that the source of most of the academically relevant cultural capital they express may not stem from their parents because they are uneducated, but from their siblings and in some cases from family friends. Another issued raised is the fact that Reuben, Abigail and Martha mentioned they are lecturers back in their home countries. Other participants, like Andrew, Solomon and Jehoram, are also lecturers. Lecturers in this context refer to being members of faculty who engage in research, teaching and administrative duties within the university. The next section discussion focuses on academically relevant aspects of habitus.

5.3 Understanding the academically relevant aspects of habitus

In this section considers the first part of the first sub-research question: *What is the habitus of participants that do doctoral study?* As per the conceptual-analytical framework discussed and established in Chapter 3, the question here is to try to understand what aspects of habitus are academically relevant for completion. It has been proposed in Table 3.1, with reference to the

literature reviewed in Chapter 2, that habitus may be related to personal factors that include bio-social and psychological factors, and socio-cultural factors and academic factors.

5.3.1 Participants' motivation: Different sources of motivation

Both the analysis of the interview data and the literature from Chapter 2 show that motivation is an important aspect of an academically relevant habitus participants possess. What can be gleaned from the relevant interview responses quoted below is that there are, however, different sources of motivation that may stem from various sources, including the family background, the personality of the individuals expressed as personal desires (for self-actualisation and identity), personal principles, a personal sense of integrity and commitment, and finally career-related factors.

5.3.1.1 Participants' family-influenced motivation

A focus on motivation as the habitus of participants shows their family background as a source of motivation can be observed in the different aspects of the family such as socio-economic background, family belief and practices, family value, and siblings as role models in terms of their level of education. These are further discussed below as sub-themes.

a) Socio-economic background of the family

The current social status of the family is a source of motivation as expressed by participants. Reuben who is a second-year Law doctoral candidate had the following to say when asked about his background:

I am from a poor family and knowing that if I don't push, I may go back to where I was, and I don't like the way I was before so that gives me the motivation. There are instances I would have dropped out.... through persistence I passed well. (Reuben, participant conversation, February 2014)

Reuben's comments show he is intrinsically motivated. His comments also clearly show how his motivation to persist, do well, and complete is related to his background as a child who grew up in a poor family. He does not want to 'go back' to where he comes from, and therefore he will 'push' to succeed. This shows the connection between motivation as a psychological factor and personal background in the academically relevant habitus. His source of motivation therefore stems from 'backward-looking'; he fears to go back to where he came from.

Like Reuben, Andrew who is a final year Arts candidate illustrates the influence of his family socio-economic background as he had this to say:

I come from a relatively poor family ... our livelihood that time in the village was farming ... going to school was a struggle in the rural area ... I continued working hard and didn't relent... my parents found consolation in me, all my siblings looked up to me ...employed as a junior lecturer after my Master's degree ... I should also do Ph.D. (Andrew, participant conversation, January 2014)

Andrew's comments indicate that his motivation to work hard and being relentless is related to his family's financially poor background. Andrew is driven to continue working hard by the fact that he wants to put to an end his struggle in the rural area. Again, we can see that his motivation is also related to his family expectations. Andrew is driven by the fact that he needs to sustain the hope of his parents and siblings: '*... my parents found consolation in me; all my siblings looked up to me ...*'. Andrew's immediate family's financial demands motivated him to do a Ph.D., thereby building on his achievement of working as a junior lecturer with a Master's degree. His source of motivation is backward looking and seeks '*financial freedom*'.

In other words, Reuben's and Andrew's motivation stems from their poor family background. The source of motivation of other participants in relation to family background varies, as discussed below.

b) Family beliefs and practices

For some participants it was found that family beliefs and practices are relevant as a source of motivation. Ruth had this to say in relation to family practice:

Our family love reading we used to get together on a Saturday and my aunt used to read to us and tell us stories and stuff, this made me to enjoy reading. For the time she (my mum) worked we used to sit in the library, so we were kind of forced into reading books as well. (Ruth, participant conversation, March 2014)

Ruth, a fourth-year year Education doctoral candidate indicates in her comments several sources of motivation. One concerns an academically related routine practice or activity such as reading and group learning: '*... we used to get together on a Saturday and my aunt used to read to us ...*

. Another source is her sense of involvement and interest in an activity related to being academically successful: '*... this made me to enjoy reading*'. Yet another source is based on her childhood or early exposure to the library as a reading place; '*...we used to sit in the library, so we were kind of forced into reading books as well*'. In Ruth's case we again find a strong sense of intrinsic motivation whereby she seeks to complete her Ph.D. as she recalls and aligns with her appreciation and love for reading.

Like Ruth, regarding family beliefs and practices John had this to say:

My father believes that education is the way out of poverty. He encouraged us to work hard. For him somebody ... should really work hard, be able to find a way out of poverty and reach to the highest level of education ... he didn't get the opportunity to go to school. (John, participant conversation, January 2014)

John's comments indicate his father's appreciation of education, as he was encouraged to work hard and reach the highest level of education. John, who comes from a large farming family, had a father whose belief in education for achieving social mobility differed from the usual beliefs of African fathers, especially those who engage in farming. His comments also show that his father's mentality is different from that of a farmer whose concern is the increase of the quantity and quality of his harvest because he valued education even though he was not formally educated: '*... he did not get the opportunity ... to go to school*'. John got the support of his father to pursue education to the highest level because he realised that by getting an education his children will change their social class from the working class.

Like John, Andrew expresses a similar source of motivation as he had this to say:

I come from a relatively poor family ... most of my childhood and teenage life was spent in the village ... farming was our source of livelihood ... I owe mum a lot because she was always there providing support ... mum said no, you can't stop school you will continue, she went to the extent of selling her own things so that I go back to school. (Andrew, participant conversation, January 2014)

It can be observed from his comments that his schooling was funded from a source other than the farming income, namely through financial support from his mother. His mother encouraged him to continue schooling.

Andrew's comments clearly indicate full support from his parents despite the financial challenge to get him through school. Coming from a working-class family, his parents did not discourage or

request him to quit schooling as could be expected from an African family who are farmers living on a seasonal income. Again, like John, Andrew's case also indicates a contrary expectation of such African parents. They did not request him to join them in tilling the soil but willingly use their irregular and insufficient income to support his schooling. In his case, his mother demonstrated commitment to his education as she sold her personal belongings to ensure he does not discontinue schooling on account of lack of finance. They preferred to remain with an unpredictable income to sustain the cost involved in his schooling. His parents display their appreciation of education.

John's and Andrew's motivation source was their parents' belief, encouragement and support, coming from a working-class family. John and Andrew did not have to fight against the mentality of their parents who may have asked them to stop school and fend for themselves instead of studying to the highest level of education, given their low and seasonal source of income as subsistence farmers. In relation to family practices, John had this to say:

Mum and dad did not have any formal education. In my big family ... family members are experienced in farming. So if I wanted to be a farmer, I would have been a very good farmer because I have a very big network of people who are experienced farmers. I want to do research ... something different from what others are doing ... build my own network. (John, participant conversation, January 2014)

From the excerpt above it can be seen that John's family practice includes commitment to farming; '*... in the big network of experienced farmers...*'. John's comments show he appreciates commitment to what one does, to be experienced and work with others; '*... I would have been a very good farmer ...*' John indicates that whatever he has learnt from his parents who do not have a formal education but were successful farmers, he can apply to something different that he wants to do such as research: '*I want to do research ...*'. This motivated him to inculcate the practice of commitment to work and working with others to become good at whatever he wants to do. Thus, John's expression of interest in doing something different, such as research, using the same network practice he experienced from his family's farming background shows he transferred his commitment, interest and cooperative ability from farming to research. In other words, John's understanding of the importance of networking facilitated his interest and encouraged him to build his own network. These attributes are academically related to doctoral completion. Considering the family as source of motivation, participants indicated other aspects as discussed below.

c) Family value

In the comments of participants, family value is expressed very clearly as a source of motivation, as in the case of Jehoram who expressed the following view during the interview:

From the nuclear family I come from and the extended family all family members respect you more if you are educated and serious about your studies, even up till now, so, from my nuclear family I got all the support. (Jehoram, participant conversation, April 2014)

Jehoram who is a fourth-year candidate in Community of Health Science expresses yet other source of motivation to completing Ph.D. study, namely one that is related to his desire for personal social recognition and status: ‘... *all family members respect you more if you are educated and serious about your studies*’. Jehoram’s comments indicate his nuclear and extended family members influenced his motivation. Another source of his motivation is his family’s belief in and value and appreciation for education, which engenders respect and support: ‘... *from the nuclear family I got all the support*’. Jehoram’s comments indicate his motivation is influenced from a broader perspective as it involves family members beyond his immediate family.

Like Jehoram, Martha had this to say:

I am from an educated family ... in my family we are well read ... my family produced the first doctor in my village ... so there is a natural motivation for you to study when you don’t want to ... I want to be called a doctor too ... (Martha, participant conversation, November 2013)

Martha’s comments show her motivation is related to her family’s appreciation of education. Martha fears to be different and sees the need to belong and share in the family’s academic prestigious recognition as an educated family in the village: ‘... *my family produced the first doctor in my village ...*’. Here, we can see that Martha’s source of motivation is a backward-looking source. Again, she is naturally motivated as she finds herself engaging and interacting with educated family members: ‘... *in my family we are well read ...*’. Her source of motivation comes from a sense of belonging and the fact that her family is educated, as can be gleaned from her comments.

Value attached to education and a higher education qualification is reflected as a source of motivation for participants, as are existing family beliefs and practices. Participants like Ruth, Martha, John and Andrew emphasised this in their comments (see section 5.3.1.1 b) and c) respectively). For instance, Martha had said: ‘... *I want to be called a doctor too ...*’.

In addition to family value, the interviews illustrated the importance of siblings as a source of motivation.

d) Siblings as role models

Regarding interaction within the family setting, siblings tend to influence each other either passively or intentionally. Reuben, influenced by his brother’s academic drive, had this to say:

My brother ... when he got his Master’s ... there was improvement in our lives, and we were able to live life well ... through him I learnt that education is important if you are to really move ahead and get out of poverty ... so that was my inspiration and makes me determined. (Reuben, participant conversation, February 2014)

Reuben’s comments show clearly that his brother’s educational qualification improved their family lives: ‘...*when he got his Master’s ... there was improvement in our lives ...*’. Thanks to his brother, *Reuben* became aware of the need for improving his education for financial progress: ‘... *through him I learned that education is important if you are to ... get out of poverty ...*’.

Like Reuben, Jacob had this to say:

My parents are not educated. Among my siblings, I am the only one without a doctoral degree, being the odd man out makes me feel unaccomplished and desire to belong ... I had to engage in studying for a Ph.D. (Jacob, participant conversation, May 2014).

Jacob’s comments show that engagement in the doctoral study is a common practice among his siblings. His admiration for them motivates him to be like them: ‘...*being the odd man out makes me feel unaccomplished and desire to belong.*’ His siblings value education: ‘... *Among my siblings, I am the only one without a doctoral degree.*’ Jacob’s comments also show the influence of siblings as role model, and he expresses dissatisfaction not having a doctoral degree like them. Thus, his desire to be like his siblings inspires him to engage in doctoral study as he perceives that doing a Ph.D. makes him feel accomplished.

Here we can see that siblings’ engagement in higher degree studies acts as a source of motivation for pursuing doctoral study. In both cases (Reuben’s and Jacob’s), this is demonstrated in their

belief in and engagement with doctoral study, and is related to academic practices that stimulate completion. Thus, the relevant attitudes and attributes of these doctoral candidates stem from the influence of their siblings.

Ruth's comments clearly illustrate the influence of siblings as a source of motivation:

My family member (my sister) played a role more as an example that I try to follow in her shoes ... I have a lot of admiration for her... She went to the United States for four years and came back with a Ph.D. She always believed in me so she said to me, I think and am sure you can do this. Without me knowing she registered and gave me the registration details as a birthday gift ... I was forced into it until I started to appreciate it. (Ruth, participant conversation, March 2014)

Ruth's comments indicate the academic influence of her sister whom she regards as her role model. Ruth's admiration for her sister inspired Ruth's desire to emulate her sister's academic journey and success. Although Ruth forcefully got into the doctoral study through the sister, she later appreciated doing it because her sister saw and believed she had what it takes to do a doctorate. Here we can see a positive appraisal of a family member who steers Ruth in the right direction: '... without me knowing she registered me and gave me the registration details ... I was forced into it ...'. We can see here that the presence of a role model within the family structure is a source of motivation in the case of Ruth.

Similar to Ruth's case, having siblings as a role model within the family is a source of motivation also for David, as illustrated by the following quote from his interview:

No, my parents are not educated but yes, my siblings are. One of my sisters is a lawyer and my other sisters are teachers, so I have educated people around me I also want to be educated. (David, participant conversation, May 2014)

David's comments indicate that he had the drive to be like his siblings because they all have formal education unlike his parents. He does not want to be different from his siblings. David's case shows a sense of belonging to an educated group, which is a relevant attribute and academically related to completion. Belonging to an academic cohort as in doctoral study shows the desire to relate and socialise within the group, emulate and participate in useful actions and activities, and keep the pace of the academic journey to completion.

In concluding this section on family-influenced motivation, we can see that the participants were motivated in different ways through their family background. In the case of Ruth, John and

Andrew their uneducated parents were not their sources of motivation; Jehoram's motivation was from extended family members; Reuben, Martha, Ruth and David got their motivation through their educated siblings; while Martha's and Jehoram's motivation also stems from the family value of appreciation of education. Doctoral candidates' motivation stemming from their family background as expressed by participants is related to completion. From these family background sources of motivation, we can see that participants demonstrate habitus such as commitment to work, push to succeed (determination), hard work, team spirit, self-esteem, and sense of academic and social identity. Other sources of motivation in relation to the individual personality as expressed by participants is presented and further discussed below.

5.3.1.2 Motivation influenced by participants' personal qualities

As discussed in section 2.5.1.6 personal qualities can act as an influencer of motivation. This is expressed by participants in different ways. Under the main theme of personal qualities, sub-themes such as personal desires, personal desire for integrity and self-actualisation, and commitment emerge, are discussed below.

Unlike Reuben, Andrew, Ruth, John, Jehoram, Martha and David whose motivation is very closely related to their family background, Naomi expressed a personal source of motivation:

One of my driving forces is ... I must make a name for myself and my children ... my personal motivation from when I was still a high school learner ... I tell myself that I am going to make it. (Naomi, participant conversation, February 2014)

From school-going age, Naomi has motivated herself to achieve success in her education to make a name for herself and be an example to her children. Her focus is on the future benefit and influence.

Noteworthy is a similar 'forward-looking' source of motivation identified in the case of Jude, who had this to say:

For me Ph.D. is more like self-actualisation ... I've told myself I want to ... to be happy in life I need to have a Ph.D., for satisfying myself and having an identity. (Jude, participant conversation, February 2014)

Jude is a third-year Science candidate. He expresses a strong sense of motivation, related to personal value. His approach is 'forward-looking' in the sense that he seeks to complete his Ph.D. in order to actualise his dream of being happy and having an identity.

Participants' comments indicate that their motivation also stems from individual personal principles, a personal sense of integrity and commitment. A similar forward-looking source of motivation can be identified in the case of John, who had this to say:

And because some of us like me, you get driven by some individuals you know, I have said that this project I will be done, and normally I never go back when I have said something. I am determined to do, ... the demand for people who are skilled is very high, with education the world now requires people who are well read, experienced and especially people who are research oriented. (John, participant conversation, February 2014)

Like Naomi and Jude, John's source of motivation to succeed is related to personal desire and characteristics. His source of motivation is twofold, featuring his own sense of integrity and principled commitment (he will not go back on his word), as well as a sense of where his education may take him: *'the world now requires people who are well read ...'*

Thus, unlike the participants whose motivation is related to their current family background, Naomi's, Jude's, and John's motivation source is related to future family, own identity, and characteristics such as personal desires. John's motivation is also career-related, which is the topic of the next section.

5.3.1.3 Participants' career-influenced motivation

Participants' other sources of motivation as observed from different quotes indicate that current employment and future professional interest also influenced motivation. Current employment is expressed as a source of motivation to do doctoral study. Abigail had this to say based on her existing job:

I think it's mainly the nature of my job, ... can force you to go for further studies or go and do research, I work as a lecturer so there is no choice; if I don't do research there will be no promotion, so I must go for it, I need that Ph.D. (Abigail, participant conversation, April 2014).

Abigail's motivation to complete her study and get her Ph.D., which she sees as a 'must do', is related to her current academic status and her need to be skilled.

Andrew raised a similar source of motivation to Abigail's:

I completed my Master's, I was employed as a junior lecturer in the University for two years... doing a Ph.D. came closer to me... since the university employed me.... the need for a higher degree, motivated me to pursue my Ph.D. (Andrew, participant conversation, January 2014)

Andrew's motivation to complete his study is born out of his current employment as a junior lecturer in the university. Academic and capacity development and material incentive are connected as sources of Abigail's and Andrew's motivation to complete their Ph.D. study, as they are both lecturers who need a Ph.D. qualification to keep their jobs and advance their careers. Thus, as with Jude, John and Abigail, values such as recognition, personal social status and appreciation of education as sources of motivation are clearly indicated in Andrew's comments.

The same source of motivation to do doctoral study was expressed by Reuben:

Back home I am a lecturer at a public university, so as a lecturer this Ph.D. in a way has become like a necessity if I have to be considered competent enough in my field, I need to improve myself in my profession ... and research. (Reuben, participant conversation, February 2014)

Like Abigail and Andrew, Reuben is a lecturer and his comments indicate his need to gain professional status and competency as a source of his motivation.

The motivation sources of Reuben, Ruth, Jehoram, David, Naomi, Jude, Jacob, John and Abigail (that is about half of the total number of participants) are related to family background, personality and professional issues. Apart from Naomi whose motivation source is her future family, the sources of motivation in the case of Jude and John are the need for personal integrity and status such as social and academic status. However, the motivation source of John, Reuben and Abigail emphasis is the need to be research relevant.

The academic/professionally inspired motivated habitus of participants applies to lecturer-participants whose motivation source was their current jobs and future professional interest. Key aspects of these academic sources are capacity development and professional relevance. These sources of motivation include, but are not limited to, commitment to self-development as a lecturer, and the need and desire to gain professional competency and status to build a career as academics and researchers.

Their motivation links and stimulates the quality of persistence found to be academically relevant, stemming from cultural sources that hinge on family and personal beliefs, personal upbringing

and preparedness, and cultural practices (family and community). Thus, their persistence connects to their academic/professional status and socio-cultural background as an academically relevant habitus (see section 2.5.1.4). This makes the family background (academic, social and culture) an uncompromising factor in relation to completion. The concept of lecturer here refers to a participant who engages with the core responsibilities of university of teaching and research (Scott, 2006). Similar responsibilities are carried out by participants who function as tutors because of the element of teaching that categorises them, but there is a difference in the level of responsibility to the students, and the execution of the job does not involve the research component that exists at the lecturer's level (see section 5.2. and 5.3.1.3). Therefore, it is seen here that being in academia not only motivated them, but it also inspired them to imbibe persistence as relevant habitus.

The various sources of motivation discussed in this section are considered as key aspects of habitus that facilitate completion. Although distinct source of motivation could be identified, they are interlinked. For instance, participants' academically relevant habitus of motivation inspired a high degree of persistence. Hence, for all or most African doctoral candidates in this study, the motivation-inspired habitus operates through their family, personal and professional backgrounds.

Motivation-inspired persistence also stems from the socio-cultural background of participants, as discussed in the next section.

5.3.2. Socio-culturally inspired persistence

From the analysis of the data as well as in Table 2.1 in Chapter 2, and Table 3.1 in Chapter 3, persistence is expressed as another psychological factor linked to motivation and academically related to completion as presented by participants in their responses. Participants' responses to interview questions on habitus (see Table 3.1 in Chapter 3), presented verbatim here, indicate that the persistence of participants is informed by socio-cultural factors. These factors include family cultural beliefs, with an emphasis on the birth position of children, and culturally related family values and practices such as male dominance. This section explores the influence of these factors on motivation and persistence.

5.3.2.1 Reflection on participants' family cultural beliefs

Family cultural beliefs, with a focus on the birth position of children, are expressed by participants as sources of persevering in a course of action having been motivated by other sources, as observed

from different quotes (see section 5.3.1.1). Family cultural beliefs are instilled in children through the actions and words of parents as part of their upbringing, as discussed below.

Peter is a fourth-year candidate in the EMS Faculty. When asked to talk about himself, he expressed the family's cultural belief that the first child is an 'impact-child', as he had this to say:

As the first child ... in our culture the first child is the one who paves the way for the others, ... emphasis is placed on me as an impact-child ... my upbringing has contributed ... and influenced my choices and my decisions a lot ... always been proactive ... to unhook myself from challenges ... take responsibility for whatever I do.

(Peter, participant conversation, February 2014)

Peter's comments show that persistence to complete his study is related to his personal upbringing. As an 'impact-child', he is expected to behave in an exemplary way: '*... the first child is the one who paves the way for the others ... there has been emphasis placed on me as an impact-child*'. Another aspect is his preparedness to make things happen, complete a task and avoid challenges that could stall him, which is related to his being persistent. His comments indicate he can operate independently to complete his study. His family cultural beliefs as reflected in his responses indicate the first child's position is held in high esteem in the African cultural context Peter found himself, hence the emphasis on him as a 'pacesetter' and/or 'bridge maker' for his siblings to follow.

As in Peter's case, Andrew's culturally related persistence can be illustrated by the following quote from his interview:

I am the second born in a family of eight ... from a large extended family.... the first born dropped out in grade 12....my parents found consolation in me; all my siblings look up to me ... (Andrew, participant conversation, January 2014)

Andrew is a fourth-year Arts candidate. His comments express a similar cultural source of persistence related to completion as Peter's, namely that of being responsible to a group of people: '*... found consolation in me ... looks up to me*'. He had a sense of involvement, related to cultural practice, which is relevant to his doctoral study. Andrew's persistence stems from the fact that his family had high hopes for him and depended on him, because his elder brother, who is the first child, dropped out of school. In other words, he has come to act as the firstborn to sustain the family's aspiration and expectations, which they could not get from the first-born child. This connects academically to the completion of his doctoral study.

5.3.2.2 Reflection on cultural values and practices

Participants' responses also show the influence of broader cultural values and practices on the family setting, as discussed here.

a) Culturally related family responsibility

Cultural values and practices within the family context are reflected in different aspects of the family life. Regarding family responsibilities, Peter had this to say:

Coming from an African cultural background, you are expected in my culture to be the breadwinner because you are the man ... it is expected that the man should be responsible to his family and provide for their needs ... so after my Master's I decided to continue to improve my finance. (Peter, participant conversation, February 2014)

Here, Peter identifies with his cultural background and accepts his responsibility as the breadwinner, which expresses the cultural belief in male dominance. Peter is committed to being responsible and to improve his financial status after his Master's programme, '*... it is expected that the man should be responsible to his family ... so after my Master's I decided to continue to improve my finance*'. This shows the connection between his cultural background and persistence as academically relevant to completion. His desire to improve his financial status to function culturally as expected is basically the drive to be persistent, which is motivated by the fact that he wants to meet the cultural expectation of fulfilling a traditional role in his own family.

Peter further had this to say:

Culturally, our people perceive and believe strongly in solidarity ... and in supporting one another ... you are not an island ... so it is with that notion that wherever I meet people ... home or my research group there is always that sense of wanting to assist and belong ... it is also about the networks built over time. (Peter, participant conversation, February 2014)

Peter's comments show his cultural practice and belief that are related to completion in two ways. Firstly, Peter's identifying with others shows a sense of team spirit and solidarity that inspires persistence related to completion: '*Culturally our people perceive and believe strongly in solidarity ... [in] my research group there is always that sense of wanting to assist and belong*'. Secondly, his culturally informed persistence is related to the sense of belonging and building a network, emphasising that consistency in working with others over time is relevant to completion.

Similar to Peter's case, David had this to say:

Well, I am from Free State and I told myself ... am going to leave Free State whether I have friends or not, and culture wise the culture is the same, I wanted to observe and experience other cultures. ... men are like soldiers they must soldier on ... it is about learning different things, I have to leave the home, so I can grow as a man. (David, participant conversation, May 2014)

David, like Peter, complies and identifies with the dominance of men in the African cultural setting, as he recognises and regards men as 'soldiers' who must soldier on and not retreat: '*... men are like soldiers they must soldier on ...*'. However, unlike Peter, David is driven by his desire to explore as he envisages challenges in cultural practices outside his cultural context: '*... I wanted to observe and experience other cultures...*'. He craves independence from family support in order to be a man. The motivational factor Peter and David have in common hinges on the cultural value of male dominance. In both cases, their culturally informed persistence is academically relevant to completion.

David's desire and readiness to inculcate a habitus of self-dependence, self-motivation and self-confidence are an academically relevant habitus for the completion of doctoral study. Peter's comments above also reiterate what it means to be a man from a cultural perspective, as he emphasised being responsible for himself and his own family (see Peter's comments above). Although, David and Peter reflect different approaches to being men, they both emphasise the quality of being independent, which supports completion of doctoral study, as students are trained to become independent researchers (see section 2.2 of Chapter 2). The views of David and Peter are an indication of an attitude of independence which is academically relevant in the transition from being a novice researcher to an independent researcher.

b) Disparity in expectations according to gender

Following the African family context of Abigail, a different culturally oriented perspective emerges:

Like most African people there are certain things that culturally are supposed to be done by men ... The father of my daughter wanted me to remain under him and always wait on him for everything ... I get frustrated ... and I can't achieve, so I decided I

will prove otherwise ... I worked very hard to achieve something in the absence of a man. (Abigail, participant conversation, April 2014)

Abigail's comments indicate her willingness to achieve despite her frustrating experiences in her cultural context. She persisted in using her enrolment into doctoral study as a means to show that studying to such an academic level is not only the preserve of men. Referring to her child's father attitude as '*... wanted me to remain under him ...*' reveals her persistence or 'fighting attitude'. Here, we can see that Peter's and Abigail's experiences are alike in so far as they relate to culturally informed persistence and commitment to academic achievement. However, there is a disparity in their experiences from a broader perspective in that Peter's desire is to comply with the cultural norm of male dominance in the African family setting, while Abigail's attitude is one of non-compliance with this cultural and traditional norm, which frustrates a female's academic ambition.

Abigail's persistence in relation to completion is one that is linked to determination, optimism and independence to escape the cultural practice of male dominance: '*...I decided I will prove otherwise ... worked very hard to achieve ... in the absence of a man*'. Her comments show her as strong-willed and hard-working to succeed. Abigail shows her desire to succeed through her 'rebellious' action against the traditional position of the woman-child. This shows the connection between her culturally informed persistence to counteract culture through her contrary cultural attitude, rebellion against patriarchy and her resolve not to allow culture to discourage and limit her academic drive. In other words, Abigail's expression of rebellion indicates her readiness to fight alone, knowing she may not get support as a female getting into doctoral study. Abigail thus displays a high level of independence, which is an academically relevant characteristic to achieving completion, as pointed out in section 5.3.2.2.

From the preceding discussion it can be deduced that the socially inspired habitus of motivational attitude, expressed as high motivation, is a common attitude of the participants, especially as participants reflect on their family socio-economic status and express a 'backward-looking' source of motivation born out of fear and a desire to change their families' social class status. This could be from a positive or negative perspective. Reuben's case like Andrew's is from a negative perspective because of their poor family backgrounds. However, from a positive perspective, Ruth's case as well as that of Deborah, John and Jacob reveals a backward-looking habitus of hard work, informed by the issue of work ethics, as they imbibed the attitude of hard work from their family members because their family members are hard-working people. These motivational sources are focused on upward social mobility. In some cases, participants' motivational source

is 'forward-looking' as they express desire to upgrade their academic/professional status. Of importance here is that the participants from a working-class background did not express the expected attitude of the working-class children, such as being resigned to their low socio-economic status. Thus, a forward-looking motivationally inspired habitus is informed by the participants' looking ahead to become doctoral graduates, to acquire social and professional status and actualisation of their dreams of being respected and recognised in their society, as in the cases of Jude, Abigail, Naomi, Deborah, Martha, David, Solomon, and Mary.

Again, the issue of forward-looking and backward-looking is revealed to be informed by the social class of the participants, namely working-class, except for one or two of them. From a sociological perspective, social class refers to a group of people who have the same social, economic, educational status, power and prestige within a society which is subject to change over time (Bourdieu, 1977, 1990; Kohn, 2013; Jager, 2013). In other words, the individual over time may experience a change of social class from one class to another (see section 2.5.2.2), based on the habitus and capital the individual possesses because different forms of capital inform social stratification such as upper class, middle class and working class within a society (Bourdieu, 1984) (see section 3.3.2). Subsequently, the issue of such stratification in a society motivates participants to imbibe habitus, such as being hardworking, persistent and focused, that is not only relevant to completion but also help them achieve their desire to change their social class (see section 5.3.1).

The discussion here also revealed that the participants in this study received parental support and encouragement to study, as do students in the middle and upper classes. Participants expressed being motivated by the cultural beliefs, values and practices of their families. Some of these beliefs include a sense of involvement, engagement in routine activities like consistent reading and use of the library, education as a means of social mobility, and placing a high value on education. In addition, their motivation was also inspired by practices such as being committed to a task, working together with others, being hardworking, identifying like minds with similar goals as a team, and imitating good academic attributes to acquire personal academic recognition.

5.3.3 Summary

Two key issues were raised in this section: motivation and persistence. These are acquired from the family socio-economic background, socio-cultural beliefs and values and practices, the personal qualities of the individual, and career-related factors. Participants' habitus is revealed as an implicit attitude such as being motivated and persistent, as this relates academically to completion.

What has also been shown, importantly, is that participants have different sources of motivation and persistence that stem from (1) family background such as (a) a poor socio-economic family background, (b) family responsibility (e.g. wanting to be an example to one's children), (c) family value of appreciating education, (2) personal status and integrity, (3) and cultural beliefs and values in conformity with culture (or rebellious against culture). This shows the connection between motivation and persistence as psychological attributes of personal background in the academically relevant habitus.

5.4 Understanding the academically relevant aspects of cultural capital

This section, considers the second part of the first sub-research question: *What is the cultural capital of participants that do a doctoral study?* Based on the analysis of data and reflection on the conceptual-analytical framework (Chapter 3) and the literature reviewed (Chapter 2), the researcher highlighted participants' experiences that reflect their various forms of cultural capital as reflected in their responses during the interview. The study proposes that cultural capital might stem from socio-cultural factors and academic factors.

5.4.1 Participants' cultural capital: Different influences

Analysis of the data from the interviews and the conceptual-analytical framework (see Table 3.1) indicates an overlap of socio-cultural and academic factors because they are both relevant to habitus and cultural capital. We see here that these concepts are intrinsic and behaviourally observable with habitus being consciously and unconsciously imbibed. As a result, an individual with existing characteristics such as being hardworking, persistent, determined and motivated can be driven by these attributes to demonstrate or sometime learn cultural capital consciously.

Following Bourdieu's understanding of both concepts (see Chapter 3, sections 3.3.1 and 3.3.2), there is an interplay between these factors within the family structure that could influence the free will of the individual over time. Thus, attributes that are inculcated empower the individual to function optimally in the demonstration of their cultural capital in any field where these are relevant. Hence, the habitus of the individual cannot be separated from the cultural capital, as indicated in Bourdieu's (1984: 101) mathematical model:

$$(Habitus \times Capital) + Field = Practice$$

Various sources of cultural capital are reflected in the data. These are socio-cultural factors, which include the socio-economic status of the family (in a broader sense) and cultural background such as home language, cultural beliefs, family members' educational background, and sibling

influence within the family setting, and values and practices. In the same vein, academic factors include prior learning, academic workplace and research experience, academic tools and resources, peer influence and/or role models, and information. Thus, the cultural capital expressed by participants is influenced in different ways. Therefore, these sources of influence on their cultural capital are sub-categorised into socio-cultural and academic sources, as discussed below. However, the discussion here focuses only on some of the factors that participants mentioned specifically and where they had their most challenging experiences.

5.4.1.1 Socio-culturally influenced cultural capital

With reference to the analysis of participants' interview responses, as well as the literature reviewed in Chapters 2 and 3, cultural capital such as knowledge, abilities, skills and competencies are revealed as relevant to doctoral education completion. Various forms of cultural capital that stem from the socio-cultural family background such as home language, family cultural beliefs, values and practices, and migration experiences are presented in this section as reflected in the participants' quoted responses.

a) Home language: Cultural differences in language

Regarding participants' cultural capital from the socio-cultural background perspective, their comments show the influence of language on their research activity, as John had the following to say:

I take time to prepare for a presentation and to do my presentation because my English is not very good, I don't speak very good English because my background and first language is French. (John, participant conversation, January 2014)

From the above excerpt it can be seen that John's French-language background made him worked hard to give attention to and master the use of the English language to communicate in research fora because he considers it necessary for good presentation: '*I take time to prepare for a presentation ... because my English is not very good ...*'. John's comments also show how his habitus of working hard could make up for the lacking cultural capital of fluency in English. At this point in his doctoral journey, his linguistic capital in French is irrelevant in his current context. However, we can see here that his habitus of being hard working as well as his language skills in French facilitates his mastering of skills to acquire English language fluency. John's inability to speak fluent English, coming as he does from a French background, made him recognise the need

to be fluent in communication with his listeners. Therefore, he takes time to prepare in order to build up his linguistic capital in English language. John's mastering skills, linguistic capital, and knowledge of the relevance of communication skills amount to taking responsibility, which relates to academic completion.

John furthermore had this to say:

I had my primary school in Ivory Coast, afterward attended university in Burkina Faso... I have always been a migrant during my years of schooling ... and now am in South Africa where I'm doing my Ph.D....

(John, participant conversation, January 2014)

John's comments portray him as a migrant who encounters different cultural practices, especially language differences; however, he adjusted to studying outside his own country. In other words, it clearly shows his adjustment skills as he migrated from Burkina-Faso, his nation of origin, to school in Ivory Coast, both of which are French-speaking countries, to another country (South-Africa) with a different language (and cultural) background where he had difficulty in speaking English: *I have always been a migrant during my years of schooling ... and now am in South Africa where I'm doing my Ph.D....* '. We again see how John's ability to imbibe, tolerate and accept cultural differences and language variation shows that his cultural competence and linguistic capital connect with his personal culturally flexible ability and background as a socio-cultural factor that is academically relevant to completion.

b) Family cultural values and practices: Building networks

Existing values and practices within the family setting facilitate the acquisition of cultural capital of some sort, as John had this to say:

In my big family ... I have a very big network of people who are experienced farmers. Since I want to do research, I had to create my own network and my network comes from my migration over the years ... I know a lot of people. (John, participant conversation, January 2014)

John's comments show his interest in research from the onset: *'Since I want to do research ...* '. John created a group he considers his own network to facilitate his interest and achievement of his goal to become a researcher: *'I had to create my own network'*. This indicates a knowledge of collaboration, an ability to build good human relationship and to socialise, through meeting people

with whom he networks for research purposes: '*... and my network comes from my migration over the years ... I have a lot of people I know*'. John's adjustment skills as he migrates to countries with different cultural backgrounds, and his skills to create his network from the people he meets as he migrates, show his acceptance of cultural differences, which amounts to cultural competence. His ability to identify interest, maintain focus, create a network and display cultural competence serves as resources for completion of an academic programme such as doctoral study.

In the same vein, Peter had this to say:

In terms of culture ... in my family we have a very tight family unit and a strong support system ... we believe very strongly in solidarity ... and in supporting one another ... we know a lot of people ... have family friends who have gotten to very great heights in terms of academic... So, basically, it's not just about the culture. It is also about the family unit, the friendships and the networks we have built over time.

(Peter, participant conversation, February 2014)

Peter's comments indicate that his family cultural background emphasises a belief in solidarity and a strong support system as a cultural practice to support each other. His case is, however, different from John's case because his family had friends who are in academia as part of his family-created network: '*... basically, it's not just about the culture ... family unit and the friendships and the networks we have ...*'. Peter's family background created an academic support system from their cultural belief and practices that is academically relevant to completion of the doctorate: '*... we know a lot of people ... family friends who have gotten to very great heights in terms of academic ... it's not just about the culture ...*'. We can see here that John and Peter have a knowledge of building and using networks for gainful purposes that connect academically to completion, as networking is an important aspect of doctoral study.

c) Diversity skills and migration

I consider diversity skills in this study as abilities to manage various differences among doctoral student cohorts, the scholarly community and the community outside academia. Differences exist among people in age, cultural background (beliefs and values), physical abilities and disabilities, race, religion, gender, social background and/or academic orientation. Thus, among doctoral students' cohort and community of scholars these diversity skills can exist in the form of cultural competence, inter-personal relationship skill and academic skills. Diversity skills can be demonstrated in the course of migration.

The migration of some of the participants from different regions of the African continent, as well as intraprovince movement within South Africa, is also a source of influence on their cultural capital. Paul, a final year Science candidate, had this to say when asked about his experience in the doctoral process.

... about culture in South Africa ... when I came here (Cape Town), I noticed that you are treated differently because of who you are and where you come from ... but you have to work with these people or somehow get help from them. (Paul, participant conversation, March 2014)

Paul, whose origin is in the North West Province of South Africa, shows in his comments that, in a way, he is a cultural migrant like John, though an intra-migrant from another province within South Africa to the Western Cape Province. Like John, he encountered people of diverse cultural backgrounds in terms of cultural beliefs, practice and language in the course of his migration in pursuit of a higher degree. Again, we can see here that he demonstrates diversity skills as he needed to understand the people he works with. His comment, '*... I noticed that you are treated differently because of who you are and where you come from ...*', indicates his interpersonal relationship skills. Paul's experience of being differently treated by his teammates because of where he comes from and who he is did not prevent him from socialising with them as his research teammates. Here Paul's commitment to work with others and complete a task shows not only the skills of a team player in a research environment but also his diversity and social skills: '*... but you have to work with these people or somehow get help from them*'. Paul's comment here also indicates his networking skills as he had to seek help from within his research team, notwithstanding their lack of acceptance of his person and disregard for his place of origin. His ability to exhibit his diversity and social skills is enhanced through migration. This corroborates the argument of some scholars for the need of students to have or develop cultural competence (Ladson-Billings, 2004; Ford & Whiting, 2008). Thus, the experiences of John and Paul indicate that migration provides the opportunity to socialise and engage with others from a different cultural background, which is academically relevant to the completion of doctoral study.

It is noteworthy here that doctoral candidates who migrate from different locations within the African continent to study in South Africa, as well as from different provinces in South Africa to study in the Western Cape, come with different cultural understandings, beliefs, values and practices that influence their academically set goals either positively or negatively. Paul's case is an indication of an encounter of the lack of cultural maturity and competence among South African doctoral candidates, which expressed itself as a barrier. In the case of student migrants, a lack of

cultural competence exists between a non-South African doctoral candidate and a South African advisor or between South Africans and non-South African doctoral candidates. The cultural differences experienced by migrant students, including language difference as in John's case, show the extent of the challenge to completion of doctoral study. Cultural competence is a necessary part of 'culturally relevant pedagogy that is based on academic achievement, cultural competence, and socio-political consciousness' (Ladson-Billings, 2004: 31), which, in this research study, relates to doctoral study and the relevant research working relationship and environment. Hence, in the case of Peter and Paul, knowledge of networking, cultural competence, interpersonal relationship skills, diversity and socialisation skills connect as relevant academically to completion.

The case of John, Paul and Peter, as migrant students, show that various aspects of social networking skills acquired from different sources serve as academically relevant cultural capital for the purpose of completion. In other words, the connection between their research-oriented academic association and knowledge, culturally flexible ability, diversity, and social skills, as well as a commitment to tasks and skills as team-players, especially in academic contexts, though stemming from culturally different family backgrounds, upbringing and personal attributes, are academically relevant aspects of cultural capital that support their quest to completion.

With the emphasis on the acquisition of cultural capital from the family background as discussed in sections 5.3. on habitus and 5.4.1.2 on cultural capital, important issues are raised from the application of Bourdieu's concept of cultural capital. Bourdieu's argument that transmission of cultural capital takes place within the family, from parents to the children (Bourdieu, 1974), seem not to be fully applicable in the experiences of these participants. The acquisition of cultural capital in the context of this study, through the experiences expressed by participants, shows it as operating through social relationships with siblings and within the family social network over and above parental influence.

Following the definition of family from the perspective of the African context (Chirozva, et al., 2014), the family influence on the acquisition of cultural capital, as expressed by the participants, does not emanate primarily from their parents because they had no or little formal education, except for the cultural values, beliefs, attributes and practices they had to pass on to the next generation. Therefore, there are several instances of participants referring to family influences beyond their parents, as in the cases of Ruth, Martha, Jude and Reuben whose influences mainly stem from their siblings.

Bourdieu failed to acknowledge that cultural capital as internalised can be influenced not only by family members within the nuclear family as it obtains in the European context but also by the larger family or the extended family lineage, as well as family friends and networks, in the African context. This is encapsulated, for instance, in the African proverb: 'It takes a village to raise a child'. For instance, John internalised knowledge of networking from his large family network of farmers and Peter did so from the network of academic family friends. This shows that Bourdieu's argument that forms of capital are distinct and closely linked to each other (Bourdieu, 1986) is relevant here. However, the experiences as expressed by the participants do not correlate with his argument on parents being the main source of influence in the family (Bourdieu, 1974). The participants in this study from working-class families acquired social capital from their family social network that they converted to what has been called here academically-relevant capital. Bourdieu's cultural capital theory also emphasises that students from social classes other than working class do better as a result of institutionally recognised and valued cultural capital taught in their homes (Bourdieu, 1977; 1984). He does not deal with the phenomenon of social mobility, amounting to a change in social class. However, the participants in this study emphasised parental encouragement and their determination to support their being educated beyond their financial ability to ensure they get the highest level of education for social and academic mobility, thereby changing their social class position.

5.4.1.2 Academically influenced cultural capital

Academic factors such as knowledge and skills, as revealed in the analysis and proposed in Chapter 2, Table 2.1 as well as Table 3.1 in Chapter 3, are expressed as relevant for completion from an academic perspective. Participants' quotes indicate that the resources stemming from academic factors presented here are in relation to prior learning, academic workplace or/and research experience, peer group or/and role models.

a) Prior learning: Research and academic

...as an exchange student it meant a lot of travelling for me ... I have met and made friends with people who are doctors, professors who have encouraged me into doctoral study and been a kind of a support structure ... have taken me to very great heights in terms of academics. (Peter, participant conversation, February 2014)

Peter's comments indicate that from his travelling as an exchange student, he had built a network of academically related friends: *'I have met and made friends with people who are doctors, professors ...'*. This shows his ability to adjust to different academic environments and accept professional support from researchers such as doctors and professors. As an African student who previously studied in a European context, his exposure and adjustment to cultural differences also show Peter's cultural competence as he created an academic support structure that facilitates his academic upliftment: *'... have taken me to very great heights in terms of academics'*.

Peter's ability to relate to seniors within an academic context (doctors, professionals) and maintain these relationships for the sake of his academic advancement indicates a connection between academic influence such as knowledge of the doctoral process and completion of study. This facilitates his enrolment into doctoral study and completion: *'... people who are doctors, professors who have encouraged me into doctoral study have been a kind of a support structure'*.

Prior learning also featured in Abigail's experience:

When I was doing my Master's degree my supervisor used to give me some of his students' theses to mark and instructed me on what to look for ... doing a Ph.D. ... it's like doing and putting into writing my knowledge of research (Abigail, participant conversation, April 2014)

Abigail's comments raise a number of important issues. Her research-oriented association with her supervisor acting as a mentor shows the connection between her skills and knowledge from her prior learning, which forms part of her academically relevant cultural capital. Her reference to *'what to look out for'* shows that her implicit resources contain a positive attitude towards completion of the doctorate. She learns and acquires more cultural capital through her supervisor's instruction: *'... my supervisor used to give me some of his students' theses to mark and instructed me on what to look for ...'*. Her knowledge of the pitfalls in the writing process of research makes her improve her writing skills as she has learnt to identify writing errors as presented in her comment. Her comments show that doing a Ph.D. offers her an opportunity to practise already acquired knowledge that is related to her academic background of research both as a Master's student and a lecturer. With Abigail's prior knowledge of research practice, she does her Ph.D. with ease. Thus, her being equipped with knowledge of research, which can be referred to as *'research capital'*, constitutes academically relevant capital to completion of the doctorate.

Abigail's skills and knowledge of research were enhanced in the process of being mentored by her supervisor who exposed her to marking theses before her commencement of doctoral study. This enables her to thrive in the university research environment, which was already a familiar terrain to her. Here we can see that Abigail's 'silent impetus' of determination and persistence drives her research capital to become active (see section 3.3.1 of Chapter 3). She can be described as a 'fish in water' as she experiences her present context as a familiar setting. Abigail's rich experience of research equips her with the ability to navigate or manoeuvre through the social space of the institutions. This shows the relationship between relevant knowledge and skills, and prior learning and research experience as academic factors relevant to completion of the doctorate.

b) Academic work or/and research experience

Participants encounter different experiences that influence their cultural capital before they engaged in doctoral study, as is evident in the case of Abigail:

*... Doing a Ph.D.... it's like doing and putting into writing my knowledge of research
... what I have been doing as a lecturer ... are working for me ... I've never struggled.*
(Abigail, participant conversation, April 2014)

Abigail's comments show that her academic status as a lecturer connects positively to her research knowledge and skills: '*...what I have been doing as a lecturer ... are working for me ... I've never struggled*'. We see here that her experience as a cultural capital transmitter of research knowledge from her academic workplace built up her confidence to manage the doctoral process as she expressed that her past experiences work for her. This shows the connection between relevant knowledge and skills, on the one side, and academic work, on the other side, as academically relevant to completion. It is important to note here that doing doctoral study is an individually inspired and deep-rooted intention and that barriers such as lack of relevant cultural capital is made up by the existing habitus, as in the case of John and Paul. They lacked language and communication skills but had relevant habitus of personal attributes such as being hardworking and determined.

Like Abigail, Jehoram had this to say:

Like I said I am a lecturer back home, I have been supervising and carrying out studies on my own. My independence in being able to carry out a study on my own is what is assisting me. (Jehoram, participant conversation, April 2014)

Jehoram's comments clearly indicate how his experience as a lecturer, namely his knowledge of research gained from his teaching engagement, as well as his engagement in supervision and conducting of research as an independent researcher, is related to his academic workplace experience. His work experience offered him the opportunity to accumulate relevant research skills to engage in doctoral study. Jehoram's engagement in his research project, with little or no supervision, shows his research skills as well as his independence and self-management skills in relation to his research background, which all form part of his academically relevant cultural capital. Thus, his academic background facilitates completion: *'My independence in being able to carry out a study on my own is what is assisting me'*.

c) Academic tools and resources

Participants' comments reflect the influence of academic tools and resources as sources of their cultural capital. For instance, Peter had the following to say:

I did a Master's programme, designed to give students the necessary tools to be able to undergo skilled research with very little assistance. During the programme we had a course on research methodology ... surveys and statistical methods of analysis, a crash course on SPSS, how to design a survey and to analyse your survey ... training that equipped me for doctoral study before I started. (Peter, participant conversation, February 2014)

Like Abigail, who had the mentorship and academic support of a supervisor, which is an institutional resource, Peter finds that his Master's programme equipped him with the necessary tools and resources for doctoral study. Their experiences differ from Jehoram's, who did not experience any form of support from the existing academic tools and resources that makes the university an enabling academic/research environment to participants. In contrast, Peter had training through intensive and short courses to prepare and equip him with relevant research knowledge and skills.

As a previous Master's student, Peter's access to research resources and training positions him to work with little assistance, having acquired the required training: *'... necessary tools to be able to undergo skilled research with very little assistance'*. Therefore, the knowledge, skills and competences learnt in order to function independently and effectively as a researcher establish the connection between exposure to research, related resources and tools as an academic factor relevant to being academically successful.

In conclusion, the discussion above indicates that academically relevant cultural capital is acquired by participants more widely beyond the family background, to embrace work experience, migration, social/research networking, academic associates and prior learning from the master's programme. Therefore, we can see that Bourdieu's emphasis on family as a source of transmission of cultural capital is limited.

5.4.2 Summary

The preceding discussion on the socio-cultural and academic influence on cultural capital shows that although participants expressed different prior-learning experiences, the pre-doctoral knowledge they gained was enough to get them started with the doctoral process. In other words, the knowledge, skills, abilities and competence considered as cultural capital that influence the participants academically stem from social and academic networks, academic tools and resources influence, prior learning, and experiences that are related to socio-cultural factors and academic factors and connected to completion. However, participants need to demonstrate these implicit and valuable resources such as presentation knowledge, interpersonal relationship skill, knowledge of collaboration, diversity and social skills (knowledge, skills and abilities) in the context of doctoral study to become effective players to complete, which is regarded as the field, in terms of Bourdieu's theory of practice (Bourdieu, 1974; 1986) (see Section 3.3.2).

From the discussion of participants' habitus (see section 5.3) and their cultural capital above (see section 5.4), we can see an overlap of habitus and cultural capital. In the case of John, Reuben and Andrew, who are determined and hard-working, and Abigail who is ready to fight and struggle against all odds, persistence is a major attribute as they persist to acquire knowledge in research. Following Bourdieu's description of capital as specific resources valued by a field, research knowledge is referred to in this study as 'research capital', which is a major research resource needed by candidates to achieve completion (see section 3.3.2). Their persistence facilitates the achievement of relevance and status such as social status, academic status as well as professional status. Furthermore, the participants express an ability to convert different forms of cultural capital into academically relevant resources through the influence of habitus (Jaeger, 2009), imbibed through socio-culturally and academically related factors.

Bourdieu (1986) emphasised social capital and the conversion of capital from one form to another. From the concept of cultural capital regarding the forms of resources referred to by participants, it can be inferred that culturally informed skills and knowledge as resources or capital that can be converted into other forms of capital inform social mobility (Bourdieu & Passeron, 1977; Bourdieu, 1986; 1990). Thus, individuals, families, households, or other categories of people can

change their social status position within or between certain social strata on account of an available and convertible capital to another relative to their current social position in a given society, and informed by several other factors which include the training and acquisition of skills and education (Lenski, 2013). These acquired resources influence the future of the participants, as it is observed in this study that most of them have graduated and changed their social class to a professional/academic social class which amounts to upward social mobility. Hence, the issue of backward- and forward-looking motivation is seen here to be around class and social status.

What comes out clearly here is the interplay of habitus and cultural capital. Habitus such as motivation, persistence, a sense of high academic value, determination and commitment to tasks, stemming from the family background, is academically relevant. This corroborates Bourdieu's work as he emphasised the family as the source of a certain ethos and as systems of implicit and deeply interiorised values that actualise academically relevant cultural capital internalised by individual from the family lineage, such as linguistic capital (Bourdieu, 1974; 1977) (see section 3.3.2.1).

Thus, one may ask how the field attributes influence participants' experiences in relation to the habitus and cultural capital that they acquired. The experiences of participants in relation to the field attributes are presented in the next section.

5.5 Understanding attributes of the doctoral field

This section considers the second sub-research question: *What are the experiences of African doctoral students in the doctoral process at UWC?* Participants' experiences are considered in this section in order to understand the intersection of the experiences and practice as informed by the features of the field. Thus, the section starts to address the issue of barriers participants encounter in the doctoral process at UWC. To achieve this, participants' responses to the interview questions are presented in the different sections that follow below.

Common features of the field are highlighted here to gain an understanding of how they determine the experiences of participants as well as to show their academic relevance to completion. In Table 3.1 it was proposed that field may be related to institutional attributes. These attributes include the nature of the doctoral programme, the research environment and support, doctoral study guidelines and expectations, resources and facilities, supervisor and supervision process, funding, and institutional culture and practices. Participants' experiences in relation to these attributes may be positively or negatively related to completion. This section explores three key factors, namely

aspects of the doctoral programme, supervision and the supervision process, and funding of doctoral candidates.

5.5.1 Different aspects of the nature of doctoral study

The concept of doctoral study was discussed in Chapters 2 and 3 and conceptualised in terms of Bourdieu's notion of a field as presented in the conceptual-analytical framework. Following the analysis of the data in consideration of the multi-faceted aspects of doctoral study as per Chapter 2, some aspects of the doctoral process relevant to completion from the participants' experiences are presented in this section. It is important to note that the experiences of the participants are functions of the field. In other words, what can be deduced from participants' quotes is that different aspects of the doctoral programme reflect the attributes of the field, either as enablers or barriers of completion of the doctorate.

Some key aspects, including choosing a research topic, the process of academic writing, the data collection process, the analysis process and the supervisor and supervision process (Mouton, 2011), are noted as consistent even when the programme structure varies between disciplines (see Chapter 2, section 2.5.3.4).

5.5.1.1 Choosing a research topic

When asked about his experience regarding the nature of the doctoral process, Jerome had this to say:

I resumed July 2011 with my own topic and had to change to another topic. My current supervisor asked me to come to her field, and I was able to present that in 2012 and it sailed through. (Jehoram, participant conversation, April 2014)

Jehoram's comments indicate that in his doctoral programme his choice of research topic had to comply with the area of expertise of his current supervisor, an older and superior player, for it to be approved by the higher academic body in his faculty. He changes his own topic of interest in obedience to the instruction of his superior. This relationship between research topic and supervisor's expertise shows that the doctoral programme attribute such as choosing a topic is academically related to completion. His compliance earned him doctoral candidacy, which is a positive experience impacting on completion. We can see here that although Jehoram's compliance earned him his doctoral candidacy, but he did not accomplish his initial purpose of doing the doctorate. His doctorate can be better described as 'Ph. D. with a compromise'.

As in Jehoram's case, Jacob also experienced issues with his choice of a research topic:

We had problems with the topic that I chose; she wanted me to pull towards a different one. I was compelled to her field of research ... and it made us not to be on good term so that wasted a lot of my time. (Jacob, participant conversation, May 2014)

Jacob's comments show that his choice of research topic was different from the supervisor's field of interest or expertise. He further indicates a challenging experience, as his supervisor compelled him to move to her field of research, which reveals a poor supervisor-student relationship: 'We were having problems with the topic that I choose ... I was compelled to her field of research ... and it made us not to be in good term so that wasted a lot of my time'. However, Jacob demonstrates a lack of tolerance and willingness to compromise, as well as non-compliance, as he refused to accept and obey his supervisor's instruction, which led to a poor working relationship and delayed completion. In the case of Jehoram, however, his habitus (particularly his adaptability and willingness to compromise) facilitated a positive experience and good student-supervisor relationship. We can see that, as in Jacob's experience, there may be a struggle to key into an interest area of a supervisor if the student is not convinced to do so from the onset. This supports that in some cases supervision itself may be an obstacle in doctoral study, as discussed in Herman (2011a) and as Pyhältö et al. (2012) pointed out (see section 2.5.3.1). Thus, non-compliance with a superior colleague's instruction as an aspect of the doctoral programme can constitute a barrier to completion.

5.5.1.2 Effective use of the English language

Another aspect of participants' experience related to the field of doctoral programme, as identified in Paul's case, was as follows:

Writing a thesis is one of the major challenges that I have encountered ... I could have done a better job ... doing this project in my own language because of the language barrier ... you think about things first in your own language before you think about it scientifically and in English language that way the expression flows better ... we could have expressed ourselves more easily and more comfortably in our own language. (Paul, participant conversation, November 2013)

Paul, a fourth-year Science candidate, indicates another aspect of the doctoral programme as an attribute of the field that influences participants' experiences to gaining completion, namely the way the use of the English language affects the writing of his thesis as a second language speaker:

'Writing a thesis is one of the major challenges ... I could have done a better job in my own language ...' Paul expresses his writing experience as a barrier to completion because of the language barrier. His comments indicate engagement of scientific thinking in his mother tongue first before he expresses his thoughts in English, which indicates a longer route for processing of information, and thus a loss of time.

Language has been mentioned also by John as a challenge in his doctoral study, as he had this to say:

I take time to prepare for presentation and to do my presentation because my English is not very good, I don't speak very good English because my background and first language is French. (John, participant conversation, January 2014)

John's comments show that communication and presentation of one's ongoing research work at research fora are an important part of the doctoral study. John's awareness of the need to present his work and communicate fluently with his listeners during his presentation requires him to commit time to preparation. His difficulty as a second language speaker of English reflects as a negative influence on completion of the doctorate in his case because in this study context English is used as medium of instruction in research.

The comments expressed by Paul and John indicate that lack of linguistic capital in the English language is a barrier in written and spoken form. This supports the arguments of several scholars such as Herman (2011); Amelink (2005); Hagy and Staniec (2002) (see section 2.5.2.3.b). However, these scholars fail to indicate how doctoral students manage such challenges.

5.5.1.3 Writing and presentation of work in progress

As an aspect of the doctoral programme, like Paul, Andrew also commented on the presentation of work:

So, the time I was doing my Master's ... the major things I learnt that helped me was creative and critical thinking, public speaking and communication skills that we must develop because it was compulsory for us to present our work to our colleagues in our university and other institutions. So, we worked hard making sure our work was free of terrible errors. (Andrew, participant conversation, January 2014)

Andrew's comments indicate presentation of work in progress as compulsory, even at Master's level. In Andrew's case his presentation experience comes across as a positive factor in gaining completion as he ensures an error-free presentation through hard work: *'So we worked really hard making sure our work was free of terrible errors'*. What is important here is that doctoral study requires attention to detail, and error-free work. Andrew's experience indicates that although he has the presentation skills, he had to work hard. Commitment to hard work therefore emerges as a factor in writing and presentation of research work.

In concluding this section on the different aspects of the nature of doctoral study, some salient features are highlighted. The choice of research topic by participants clearly shows that there is a connection between unwritten and existing boundaries of doctoral study as a field. The experience of Jehoram and Jacob relating to this aspect of the doctoral study programme as an attribute of the field, revealed that the choice of a research topic (and related interaction with the supervisor) can either be a positive or a negative factor in attaining completion. The use of the English language in communication, both in speaking and writing, as an aspect of the doctoral study, can present a barrier to completion in the case of candidates who are second language speakers of English. Finally, commitment to hard work and thus a work ethic shows to be relevant in order to be able to cope with the varied demands of the doctoral study, including presentation skills. Overall, participants' knowledge of the doctoral field, including its boundaries, and the rules and features of the field, determine the experiences they encounter within the field.

5.5.2 Supervisor and supervision process as a field attribute

The conceptual-analytical framework suggests that the student-supervisor relationship and supervision process are important attributes of the field of doctoral study, and therefore academically relevant to completion. The participants' quoted comments presented here reveal different experiences that either positively or negatively influence completion. What can be seen from the quotes is that some aspects, such as the supervisor-student relationship, the supervisor's availability and feedback, feature prominently in the participants' discussion of their experiences.

5.5.2.1 Prior supervision experiences

Participants illustrate in their responses the relationship between previous experiences to the current one in the supervision process as Abigail had this to say:

When I was doing my Master's degree my supervisor used to give me some of his students' theses to mark and instructed me on what to look for ... doing a Ph.D. ... it's like doing and putting into writing my knowledge of research ... what I have been doing as a lecturer ... are working for me ... I've never struggled. (Abigail, participant conversation, April 2014)

Abigail's comments show that the maintenance of a good working relationship between her and the supervisor created learning opportunities for her. She got an escape route from pitfalls through instructions and guidance. Again, we can see that the working relationship between participant and supervisor is an aspect of the doctoral study which may be positive or negative. Here Abigail's experience indicates a positive relationship as she enjoys mentorship from her supervisor through proper guidance.

Abigail's comments also relate to the fact that the field is like a stairway that shows students moving from bachelor's programme to Master's programme and then to the doctoral programme. In Abigail's case, what she learnt at master's level is applicable to what she is doing at doctoral level and this gives her the opportunity to build on it. In other words, having the right guidance and foundation for research is a positive experience towards completion. However, the reverse could also be the case as a previous experience can negatively influence the expectations of participants, as in the case of Andrew who had this to say:

In my Master's programme ... my supervisor was something else, you give him a chapter it will stay for six months, you give him a full draft forget, each time I walked into his office my thesis is gathering dust on the desk, so when I moved here to pursue my Ph.D., the first fear was supervision, is this person going to be the same with the person who supervised me for my master's ... but fortunately, he was totally and exact opposite to the one I met here ... offers me a lot of support ... (Andrew, participant conversation, January 2014)

Andrew's experience in the master's supervision process differs from Abigail's case. His comments above indicate a negative prior supervision experience, as there was no attention given to his work during the supervisory process. Unlike Abigail's case where her supervisor engaged with her as a mentor, instructing and guiding her through the supervisory process, Andrew started his doctoral journey with a negative expectation.

The experiences of Abigail and Andrew indicate that the field as a learning space determines experiences that impact on completion. In other words, the attributes of the field, such as prior supervision experience, are considered important for participants to achieve completion.

We see from Andrew's previous experience that students pursue doctoral study with fear, anxiety and uncertainty when they fail to acquire relevant knowledge, skills, abilities and competencies before they engage in the doctoral programme. Thus, participants' negative experiences during the prior supervision process result in a negative expectation when they embark on doctoral study, which could affect their level of performance, unless this is counterbalanced by a positive experience, as in the case of Andrew.

5.5.2.2 Supervisor as support, including pastoral support

Andrew's experience in relation to support from his supervisor indicates another attribute of the doctoral field in his comments. Andrew had this to say:

My Ph.D. journey is one of the memorable experiences I have ever had, in the sense of working with a supervisor who understands his job ... yea I think I owe it to my supervisor because he made it easy for me ... He offered me a lot of support ... always there to explain things... helping students to develop... sometimes it was frustrating of course, ... in fact he could see that I was frustrated but had his way of calming me down (Andrew, participant conversation, January 2014)

Andrew's comments show that his supervisor was a support structure who was readily available and who also functioned as a developer. This indicates expertise and academic competence on the part of his supervisor as he describes him as a capacity builder and one who helps students to develop. He also saw the supervisor as one who untangles him when he is trapped in academic difficulty: '*... always there to explain things...*'. Thus, his supervisory experience encourages a close working relationship between him and his supervisor. In other words, we can see Andrew's experience of the supervision support as a positive attribute of the field that facilitates confidence in the expertise of his supervisor. Hence, faculty members with advanced degrees and experience are assets when it comes to supervision at the doctoral level. Consequently, his positive supervision experience is in congruence with the arguments of Rosenzweig (2008) who contends that the expertise of the supervisor in their field of study facilitates their engagement with students at the doctoral level.

Furthermore, Andrew's comments also show that his consistently good relationship with his supervisor in the supervisory process works positively for him and even includes a 'pastoral' dimension: '*... in fact he could see that I was frustrated but had his way of calming me down*'. His supervisor demonstrates concern for his student's well-being, observes his frustration and makes an intervention: '*... has his way of calming me down*'. Andrew's experience of healthy mentorship from his supervisor serves as a source of encouragement, making his experience a memorable one.

In the same vein, John had this to say:

I consider myself lucky I got a very good supervisor ... because he takes Ph.D. students as his friends ... he always gets words to encourage me morally and psychologically ... every time I go to see my supervisor when I come back, I want to work harder, study than I have ever done. (John, participant conversation, January 2014)

John's comments show he has a good and friendly relationship with his supervisor that creates a relaxed working atmosphere for him, motivates him morally and psychologically, and gets him inspired to work harder. John enjoys a positive student-supervisor working relationship and maintains a hard-working attitude that psychologically impacts on completion. The field attributes of supervision support reflect on the working environment where the learner and the learned engagement stimulates or frustrates further engagement as determined by the learned. John expressed the desire to work harder after every supervisory meeting as an outcome of his supervisory support. The supervisor and the supervision process can be experienced positively or negatively by doctoral students. Thus, participants' expectations, challenges and the attributes they demonstrate as outcomes of the support (pastoral support) they receive in the course of the doctoral journey are academically related to completion. Also, of relevance here is the issue of supervisor availability, as explored in the next section.

5.5.2.3 Supervisor being available

Availability of the supervisor influences the experiences of participants. A supervisor who is available and engages with the student creates a positive experience for the student. Abigail had this to say:

I have the best supervisor ... he is always there for me ... he came to his office when he was supposed to be at home ... for me to brief him what I have done and the way forward and instructed me on what to do ... no, no way, I would not want to change

my supervisor. I might be going for someone who would not assist me ... I've never struggled. (Abigail, participant conversation, April 2014)

Abigail's comments show a cordial relationship with her supervisor who demonstrates concern for her progress and gives direction for the next line of action to move her work forward. Here we see again that Abigail commends her supervisor's availability and assistance and indicates this as the reason why she has never struggled: '*...no, no way I would not want to change my supervisor I might be going for someone who would not assist me ... I've never struggled*'. This created a positive experience for Abigail.

Andrew and Abigail experienced a positive supervisor-student working relationship. In the cases cited above, one can see that the participants reciprocate the support they got from their supervisors by putting in an extra effort in their work.

However, some participants, like Martha, experienced a lack of supervisor availability:

...here my supervisor retired ... I kept working without any guidance ... until I learnt a new lecturer is coming ... he eventually became my co-supervisor... but he was not readily available ... (Martha, participant conversation, November 2013)

Martha's comments indicate that the absence of a supervisor meant she had to depend on her own knowledge and work by herself without the input or guidance of a senior colleague or advisor. Martha's case, unlike Andrew's and Abigail's, shows a negative experience with the supervisor and supervision process. Abigail's and Andrew's experiences of regular attendance and follow-up on their progress by their supervisors encouraged and facilitated their work. We see here that Martha experienced this field attribute negatively but made an effort to establish a relationship with a prospective supervisor, who also became unavailable. The supervisor's availability is one of the factors in the supervision process that influences participants' engagement with their work. Further factors are discussed in the next two sections.

5.5.2.4 Conflicting feedback: two supervisors

The data analysis, the conceptual-analytical framework, as well as the review of the literature on the doctoral supervision model presented information on various models of supervision. One such model is the traditional model which involves one or two supervisors (see Chapter 2 section 2.3.2.1). Where two supervisors are used, the issue of conflicting feedback arises. This was experienced by Reuben who had this to say:

Two supervisors are challenging to the extent that you don't find the responses timely ... sometimes it may take like a month or two ... you may receive comments from one supervisor and then at later stage the other supervisor gives you another comment on same sections of the chapter ... So, you may have inserted the earlier corrections now you have to go back to your previous position. Is of course confusing sometime because you do not know which comment you should really have on the latest document. (Reuben, participant conversation, February 2014)

Unlike Andrew and Abigail, Reuben's comments show that he received staggered, delayed and conflicting feedback from two supervisors. He experiences this as confusing, which reflects as a negative supervision process for him. It can be seen here that despite the delay and as confused as he may be, he takes on the available feedback while waiting to create a new copy of the document, thus creating a gap in his writing process. We can see here that participants get hindered by conflicting responses from supervisors when there is no coordination between them with respect to feedback given to their students. This becomes negatively related to completion.

Gill and Bernard (2008) confirmed that variation in the expectations of supervisors influence the research supervision, which in Reuben's case impacts negatively on his experience. His effort to reconcile feedback takes up his time and leaves him in doubt as to which advice to follow. Lack of timely feedback is raised in the next section as another aspect of the supervision process functioning as a barrier in relation to completion.

5.5.2.5 Lack of timely feedback

Several participants experience feedback as untimely, similar to Reuben's experience. One such participant was Andrew, who had this to say:

Most of my colleagues complain their supervisors hardly give them feedback, some delay to give feedback ... some want finished full draft or the entire thesis ... with feedback coming almost immediately or timely but on small portions of work done ... anticipating the type of comment on the next draft helps ... attempts to get supervisor's attention strains the relationship ... because student's request for feedback was not welcomed ... makes the progress of students difficult ... (Andrew, participant conversation, January 2014)

Andrew's comment shows that irregular and lack of timely feedback causes anxiety in participants and leaves them helpless. Andrew expresses that his colleagues get desperate as they attempt to get disentangled from the trap of stagnancy which results in a strained supervisor-student relationship that negatively affects completion: '*... attempts to get supervisor's attention strains the relationship ... because student's request for feedback was not welcomed ...*'. Participants' negative result from their effort to get a supervisor's inputs discourages them as they consider their attempts as '*not welcomed*', leaving them with a negative outcome: '*[it] makes the progress of students difficult*'. This confirms the argument of Mouton (2001) regarding the supervision relationship (see section 2.5.3.4). In other words, within the supervisor and supervision process as an attribute of the field, when there is a lack of timely feedback participants do not receive the support they need. This is expressed as another aspect of the supervision process related academically to completion as a negative factor.

This section on the supervisor and supervision process as a field attribute reveals that participants' responses align with issues raised in the literature regarding supervisor and supervision challenges. Thus, supervision functions in their experiences either as a barrier to completion or an enhancer. Participants identified issues in the supervision process such as the lack of research skills of some faculty members and the management of the thesis writing process, among others (Ghadirian, Sayarifard, Majdzadeh, Rajabi & Yunesian, 2014) as supervision barriers. Poor supervisor-student working relationships and lack of expertise in research skills and knowledge on the part of the supervisor can result in doctoral students' withdrawal if the challenge is not properly managed. However, no case of withdrawal is reported by any of the participants in this study. For the record, all these participants are currently UWC doctoral graduates except for two others and the researcher of this project herself who are still studying at this university.

In conclusion, the supervision process as experienced by participants shows several dimensions of the field. Their supervision experiences indicate that supervision has several dimensions. Unlike the dimension of expertise (the knowledge and research skills of supervisors, which affect the choice of a candidate's topic) and the management or administrative dimension (being available and giving timely feedback), the pastoral dimension of supervision (giving moral support in the form of assurance and motivation) operates more at an interpersonal level. All three dimensions featured in the participants' comments quoted in this section as factors impacting on completion of the doctorate.

It is important to note that the administrative, expertise and pastoral dimensions vary in accordance with the supervisor. Moreover, some supervisors might only operate effectively in one dimension

at the expense of the other dimensions, for example. Given these variations, doctoral students do better when equipped with relevant habitus and cultural capital. However, what habitus and cultural capital students should possess for entering into the doctoral study and how they apply these to manage the barriers they encounter are matters that have not been identified or discussed in the literature. Yet the supervisor-student relationship as an institutional attribute is a significant factor related to completion of the doctorate.

5.5.3 Funding as an attribute of the field

Participants' responses highlighted funding as yet another important factor connected academically to completion. An issue raised by participants on funding or financial assistance is in relation to financial support in the form of work-study. Participants express this factor either as a positive or negative influence on their completion.

When asked about his experience in the doctoral journey, Andrew had this to say:

Based on my teaching experience back home, the department decided to give me a teaching contract, yea what I would say, teaching assistantship ... I can pay for my accommodation as well as for upkeep, I could focus on my studies. (Andrew, participant conversation, January 2014)

Andrew's comment above shows that his prior teaching experience facilitated his employment as a teaching assistant which earns him financial support from his department. This departmental support eliminates his financial burden which enables him to focus on his studies, '*... I can pay for my accommodation as well as for upkeep, I could focus on my studies.*'

Andrew's experience as a lecturer is different from Paul's who got his financial support from tutoring. The ways in which doctoral students are engaged to raise financial support varies, as illustrated by the cases of Andrew and Paul. Paul had this to say:

The department only gives a stipend or some sort of support if you do something ... I started tutoring in the department ... working to earn per hour, I put in more hours standing up ... to get something enough to eat and look after my family ... you find yourself caught in-between the family social economic status and study. Chances are there in a day you don't touch your schoolwork ... not because you don't want to or being lazy, but tired and beyond ... It affected one's study ... extends the period of study. (Paul, participant conversation, March 2014)

Paul's comments clearly indicate that insufficient finances affected his capability to cope with doctoral study. His family's socio-economic status exposes him to financial pressure that reflects as a financial barrier in relation to completion. Paul's financial assistance comes in the form of payment for tutoring in the department where he does his study. Paul's low payment created the need to increase his working hours and workload to increase his payment. Thus, he stretches his capability and time, thereby forfeiting his study time: '*...Chances are there in a day you don't touch your schoolwork ... not because you don't want to or being lazy, but tired and beyond... .*' In other words, Paul receiving payment that is hardly enough for his personal upkeep and to maintain his family, reflects as a negative financial influence on completion. '*It affected one's study ... not because you don't want to or being lazy, but tired and beyond ...*'. In other words, insufficient funding emerges here as a barrier to completion. This is confirmed by scholars like Golde (2005) and Lovitts (2001) (see section 2.5.3.7). This barrier remains a challenge for many students, given that there is a lack of bursaries for doctoral students, as Portnoi (2009), Herman (2011) and (Cloete et al., 2015) confirm in literature (see section 2.5.3.7).

Paul's low socio-economic family background and lack of family financial support compels him to struggle as he diverts energy and time away from his studies in order to earn a living. His engagement in his financially related activity has no direct relationship with his research, except that it gives him some financial stability to manage his study. However, the opportunity to tutor enriches his academic ability (a form of capital) because while teaching, learning takes place, and this makes studying at doctoral level a holistic experience as confirmed in literature (Golde & Dore, 2001; Park, 2007; William, 2011). This implies that if participants must engage in tutoring, then it should be financially attractive, given that it takes away useful time from the student. More so, tutoring, unlike lecturing, does not actually contribute to the field of study of the participants, as expressed within the context of this study, as participants employed as lecturers most times engage in research activities and writing/editing of articles from ongoing research projects within their field of study (see section 5.4.1.2). However, tutoring enhances participants' teaching skills and prepares them for life in academia for those who choose this as a career path.

It is of importance to note that in some cases doctoral candidates without such financial support could either drop out of the programme or experience delayed completion. Yet, doctoral candidates with financial assistance but without appropriate habitus and relevant cultural capital may nonetheless struggle to attain completion. In effect, financially related barriers, though critical, are just one among several challenges that participants experience. As a field attribute it relates directly to the cultural practice of the institution, hence it could be resolved in different ways at doctoral level, either through the institutional structure and/or some form of policy in

place (see section 2.5.3.6). For instance, in some higher education system and universities doctoral study is made a type of ‘employment’ like a ‘post-doc’ (Golde & Dore, 2001). In the South African research context, the doctoral model seems contrary to the model in some European countries as it disadvantages candidates from working-class backgrounds who attain completion under conditions of a great deal of financial pressure (see Golde & Dore, 2001; Herman, 2011a).

In summary, the consideration of funding as a field attribute in my study reveals that in the context of my study, funding reflects as a barrier from the different ways participants engage within the doctoral field to raise finance. One is being engaged as a lecturer and the other as a tutor, who is working as teaching assistant in the work-study programme (see section 2.5.3.7) as source of income at doctoral level. Thus, most participants in this study, live on stipend paid through work-study except for few who are fortunately engaged as lecturers who earn better than being in the work-study programme. One may want to ask why did these candidates raise this as an issue of concern, could it be that the way candidates are supported financially in other institutions is different? Thus, we can see here that the field in this research site functions contrarily to the purpose of doctoral study as it concerns capacity building in the field of study. It also functions as a tool to break the elevator of upward mobility for these candidates who come into doctoral study with an intention to change their social class as in Paul’s case.

5.6 Summary of the chapter

This chapter presented a discussion and analysis of the findings based on the interviews of participants. A thematic analysis was used to identify the influences impacting on doctoral study as expressed by participants in the interviews. A discussion of the background of participants was presented as a first step in order to contextualise the findings. This was followed by three main sections, focusing on habitus, cultural capital, and field of study, respectively.

The study found that participants had expressed various features common to their family background and personal social background. Some of these features include the socio-economic status of the family, their personal social status, social and academic activities and networking, and the cultural and educational values of the family that inform the source of their habitus and cultural capital baggage with which they enter the doctoral programme.

The chapter reveals that participants’ habitus is informed by different sources of motivation such as participants’ personal qualities, family influences, and career-related influences. Participants demonstrate habitus informed by a backward-looking motivation as they are influenced by their family background and beliefs and a forward-looking motivation as they indicate a desire to

change from their current socio-economic status to an improved status and experience financial freedom. Of importance in this section is the influence of educated siblings as against the influence of parents, who are mainly uneducated, to determine the habitus and cultural capital imbibed.

The chapter also addresses the academically relevant cultural capital of participants. The cultural background of participants influences the cultural capital they imbibed. From the discussion, we can see the application of linguistic capital as knowledge and skills in their first language that facilitate the management of the use of English as a second language, and acquisition of another skill such as presentation and communication skills. Again, participants' cultural values and practices also enhanced the acquisition of networking and adjustment skills, cultural competence and knowledge of collaboration. Participants also acquire cultural capital from their prior and current endeavours in research and academic. Thus, they acquire research knowledge, navigational skills, writing skills, and diversity and social skills.

Experiences of participants in their quest for the highest degree in education are determined by the different field attributes. The participants expressed either positive or negative experiences from their encounter with the field attributes such as aspects of the doctoral programme, supervisor and supervision process and funding. Thesis writing, an aspect of the doctoral programme, also posed a barrier to participants who have English as a second language.

Factors relating to the supervisor and supervision process have emerged as significant influences in the doctoral journey of participants. Supervisors who establish good working relationships with their students, act as developers, confidence booster and respect the student as a fellow researcher transfer their knowledge and skills to the student (Ghadirian, et. al., 2014). Given the significant influence of the supervisor and supervision process in the context of this study, it should be noted that a quarter of the total number of participants who made up the sample in this study expressed negative supervision process experiences, especially regarding the quality of feedback, the length of time taken to receive feedback, and consistency in the content of feedback given where more than one supervisor is involved in the supervision process.

Some participants expressed a positive experience with funding as an attribute of doctoral study as they got encouraging financial support from being engaged as lecturers. However, participants in the UWC work-study programme expressed a negative experience coming into the field with prior financial difficulties due to their poor socio-economic background.

The next chapter focuses specifically on the barriers participants encountered and the practices they adopted to overcome the barriers.

CHAPTER 6: PRACTICES SUPPORTING COMPLETION

6.1 Introduction

The previous chapter discussed participants' habitus, cultural capital and experiences with their encounter of the field attributes. This chapter presents and discusses how participants manage the barriers they encounter during their doctoral journey at UWC in their quest to complete their studies. Thus, the focus here is on practices which are supportive of completion. Therefore, this chapter examines the different barriers and the participants' practices with emphasis on habitus and cultural capital that the field determines as relevant and that inform practice.

The 'mathematical' model of Bourdieu's theory of practice, i.e. $(h + cc) + f = p$, (see section 3.3) and the insight into the challenges doctoral students encounter as revealed in the literature (see Section 2.5) give rise to the question: Do participants' habitus, cultural capital and field attributes interact to generate practice as reflected in Bourdieu's mathematical model? Following Bourdieu's human action (practice) within a social space (or field) as a function of the personal intrinsic resources of the individual, the issue of barriers within the field emerges as an important factor. Thus, this chapter revisits Bourdieu's understanding of practice as human action in response to the field of play to understand why people act the way they do or what determines their actions (Bourdieu, 1977).

Reflecting on the research question stated in the previous chapters, this chapter presents findings on practices here to answer the main research question: *What are the practices of African doctoral students to attain completion of their doctoral study at the University of the Western Cape (UWC)?* as well as the third sub-research question: *In what ways do African students manage the barriers they encounter in the doctoral process at UWC?* In answering the questions, the chapter presents the barriers that inform their practices. The chapter is divided into four parts. The first part, section 6.2, explores the different barriers participants encounter within the field and their practices. The second part, section 6.3, focuses on the existing variations in practices with emphasis on the lecturer-participants practices, and section 6.4 presents the conceptual discussion of the concepts of the theory of practice with the purpose of highlighting the existing dynamic interaction among the concepts. Section 6.5 finally presents a summary of the chapter and reflects on its key findings in relation to the conceptual-analytical framework developed in section 3.4. of the study.

6.2 Barriers participants encounter and their adopted practices

Participants adopt practices to manage the barriers they experience in order to achieve their goals of completion. Bourdieu's theoretical model shows that participants engage with the field with their habitus and cultural capital functioning as resources to successfully 'play the game'. The question on practice is considered in relation to their habitus, cultural capital and key attributes/requirements in the field. Therefore, this section presents the various barriers and the different practices informed by them. These barriers are presented as (1) barriers in habitus, (2) barriers due to a lack of cultural capital, and (3) field-related barriers.

6.2.1 Barriers related to habitus and related practices

The habitus of participants finds relevance as directed by the field attributes. Participants' experiences of barriers within the field stimulate the needed habitus. Participants demonstrate their habitus in different ways as they encounter the field attributes. One instance where a participant showed aspects of their habitus that is 'lacking' relates to key aspects of the nature of the doctoral programme as a field attribute (e.g. being consistent, compliant, self-motivated). The negative experience of Jacob as discussed previously (see section 5.5.1.1) shows, for example, his lack of willingness to compromise (with regard to the choice of research topic) in light of the suggestions by his supervisor. Contrary to Jacob's experience is Jehoram's who expresses a positive experience through the demonstration of compliance and team spirit as he accepts his supervisor's guidance.

However, Jacob managed his habitus in the following way:

I was left without a supervisor and overcoming it I had to sort of suspend my programme, but I stayed within the academic/research environment ... so that I don't lose the research stamina ... I engaged with scheduling oral presentations for students and staff/faculty, listen to their topics and how to apply theories which helped me a lot ... (Jacob, participant conversation, May 2014)

From Jacob's comments above it can be seen that he applied his cultural capital, i.e. his ability to navigate the research environment, by staying in his institution to continue engaging in research activities. Therefore, the lack of relevant habitus can stimulate relevant cultural capital. Jacob resolves to move away from the negative circumstance and keep his focus on achieving his goal: '*... I had to sort of suspend my programme, but to stay within the academic environment ... so that I don't lose the research stamina ...*'. Moreover, Jacob uses this challenge as an opportunity

to gain further relevant cultural capital: *'I engaged with scheduling oral presentations for students and staff/faculty, listen to their topics and how to apply theories which helped me a lot ...'*.

Mutual understanding and consent are important elements of teamwork as seen here; they are relevant in the achievement of progress towards completion. Jacob's practice of suspending his studies and engaging in other research activities worked for him. He was able to resume his studies and is currently a doctoral graduate. In other words, his habitus of determination and goal-orientation enhanced his cultural capital of research knowledge and skills to compensate for his loss of time from what he experienced as a negative influence of supervision and in relation to which he was not willing to make a compromise. Again, we can see here that (the lack of) one form of habitus may stimulate or highlight another form of habitus such as being goal-driven, along with its interaction with cultural capital.

With reference to barriers that arise from supervision as a field attribute, Andrew's comments have shown that his colleagues apparently lack endurance and tenacity to manage delays and lack of feedback from their supervisors (see section 5.5.2.5) as they attempt to get their supervisors' attention out of desperation to untangle themselves from the stagnancy trap. However, Andrew did not express how his colleagues manage their experiences. Reuben, one of his colleagues, experienced a lack of supervision and conflicting feedback from two supervisors as a barrier, and he demonstrates endurance and tenacity, and the ability to manage the experience by using other field attributes, as the following quote shows:

In the faculty we have this Ph.D. colloquium ... my co-supervisor is the respondent to my work so with that if she gives me comment at the colloquium then I know that these are the comments from her so I insert them ... now I have both sides direction at par, then if there is any mix-up then I will ask them to resolve it there ... we sat down to say which direction should I go ... I use the colloquium to my benefit ... (Reuben, participant conversation, February 2014)

Reuben's comments show that he resolves his supervision-related barrier through the institutional mechanism of the Ph.D. colloquium. The opportunity to have both supervisors present helps him to resolve and escape 'the delayed and conflicting feedback trap'. We can see here that his habitus kicked into action, interfaced with his cultural capital of presentation skills, communication skills and inter-personal relationship skills to inform his practice. This confirms the arguments of Hawley (2010) and other scholars (Amabile, 2012; Lovitts, 2005; Sternberg, 1997; Sternberg & Lubart, 1995) that doctoral students need to be beyond being academically intelligent (see section 2.5.3.4). In other words, commitment to task and being academically 'smart' as habitus stimulates

the cultural capital such as the ability to adapt to meet the demands of the circumstances, as well as attributes of habitus such as tenacity and determination. This shows that it is not enough to have relevant habitus; available relevant capital is important to manage existing barriers, as seen in the case of Reuben.

The cases cited above show that participants in this study express other forms of relevant habitus when they fail to apply the exact needed habitus to the barriers they encounter. Again, the practices they use indicate the inter-relationship of habitus and cultural capital as Bourdieu presented in his mathematical model of the theory of practice (Bourdieu, 1984) (see section 3.3.4). The next section presents a lack of cultural capital-informed barriers and the practices induced by them.

6.2.2 Barriers related to cultural capital and related practices

Cultural capital-informed barriers indicate that the field requires specific essential resources that enable the individual to ‘play’ effectively. By the same token, a lack of relevant cultural capital such as skills, competencies, abilities and knowledge, linguistic capital, presentation skills, thesis writing skills, and cultural competences as emphasised and presented in Chapter 5 of this study reflect as barriers. A focus on participants’ cultural capital-related barriers indicates their practices. However, participants’ imbibed habitus turns out to be an impetus for them to build unavailable but relevant cultural capital as indicated in the previous discussion (see Chapter 5 sections 5.3.1, 5.3.2 and 5.4.1). The next section presents these barriers and the practices informed by them.

6.2.2.1 Lack of competency in thesis writing (use of the English language)

The use of English as a second language in thesis writing is an aspect of the doctoral programme which is experienced by many participants as a barrier (see section 5.5.1.2). For instance, Paul, in the management of the language barrier, had this to say:

You think about things first in your own language before you think about it scientifically and in English language, that way the expression flows better ... (Paul, participant conversation, November 2013)

Paul’s comment show that he adopts the practice of knowledge transfer (linguistic capital) to negotiate meaning in written form to manage this language barrier. As practice, this barrier stimulates the application of his habitus of hard work and tenacity, as well as other cultural capital such as linguistic competence in his first language. The barrier also made him apply his mind to

using different aspects of his cultural/linguistic capital in conjunction as indicated in his comment. His habitus of determination and resolve thus stimulates the application of his English language ability.

Paul also indicates another practice as he had this to say:

Fortunately for me my other supervisor (first) ... is English from Liverpool ... he functioned as my English language teacher as well as writing coach and I think he helped me (Paul, participant conversation, November 2013)

Paul's encounter of the language barrier as expressed previously (see section 5.5.1.2) shows the same kind of habitus and the investment of his other abilities (cultural capital) to manage this difficulty, even though he employs a different practice. Paul's comments show his ability to identify and accept his difficulty as he identifies one of his supervisors as a source of help. He uses the existing cordial relationship between him and his supervisor to engage his supervisor as his English teacher and writing coach.

Paul's ability to utilise the academic support from his supervisor, specifically skills support in the form of language and writing support, relates to his habitus and cultural capital, which are academically relevant to completion. We see here that the cooperative attitude of his supervisor encouraged his expression and application of his habitus. In other words, with his relevant habitus (determination and resolve), and cultural capital as mentioned earlier to manage the barrier, Paul acquired further cultural capital. His deficit in linguistic competence in English (cultural capital) is compensated by his habitus of determination and tenacity, which results in a practice of help-seeking.

Like Paul, John experienced a barrier in the form of a lack of cultural capital such as linguistic skills, which reflects as a struggle in the presentation of his work. John had this to say:

I take time to prepare for a presentation and to do my presentation because my English is not very good, I don't speak very good English because my background and first language is French. (John, participant conversation, January 2014)

John's comments indicate a habitus of commitment to tasks and hard work to manage his deficit in cultural capital (i.e. English language skills) due to his French-speaking background. As a practice, he devotes more time to acquire the needed language skills. In so doing, he also honed his time management skills as he commits time to the preparation of his presentation. John's action

to manage his cultural capital deficit indicates the importance of certain institutional support structures (which may have been set up for different reasons), such as a research forum. Over and above his use of the forum to address his language barrier, the forum helps him to keep abreast with his peers in terms of progress, develop critical thinking skills as the listeners ask questions, and it encourages deeper engagement and originality of his work.

From the preceding discussion it is clear that Paul and John applied practices that indicate the application of their habitus (tenacity, determination, commitment to task, hard work, help-seeking behaviour) and existing cultural capital such as the ability to apply the linguistic capital of their first language in improving their second language (English) skills.

6.2.2.2 Lack of knowledge of research and research process

A barrier that is induced by a lack of relevant cultural capital is related to another key aspect of the nature of the doctoral programme: knowledge of research itself and the research process. For instance, John's family background does not provide him with relevant knowledge of research or a network to gain such knowledge from; however, his migration experience has given him a network of 'a lot of people' with whom he has connected because of wanting to do research (see section 5.4.1.1). John's practice to build his research knowledge by means of networking is illustrated here:

In my big family ... I have a very big network of people who are experienced farmers. Since I want to do research, I had to create my own network and my network comes from my migration over the years ... I know many people. (John, participant conversation, January 2014)

John's comments show his farming family background, his migration experience, and his desire to improve his research knowledge. He indicates the use of his interpersonal relationships and networking skills to acquire relevant cultural capital. John builds a research network for research purposes from his migration experience.

The same applies to Peter who also indicates the influence of social network of academic family friends who provided academic and research support for him. Peter indicates his exchange programme to Europe as another practice that facilitated his acquisition of research knowledge. Peter expresses that his engagement in short and intensive research-related courses during the programme in Europe (see section 5.4.1.2) encouraged him to engage in doctoral study. In other words, the cases of John and Peter are instances where they got equipped before they embarked

on the doctoral journey. However, they encountered other barriers; as discussed earlier, John and Peter apply their navigational skills in addition to their previously acquired skills to manage cultural capital-related barriers mentioned above.

Abigail's excerpt (see section 5.4.1.2 on marking Master's theses) shows good practice as a way of managing a lack of research skills and knowledge. However, her meaningful effort comes as she follows the guiding rule in the AMM of supervision where the student (apprentice) must follow the instructions given by the supervisor (master) who acts like a 'soothsayer'. Here we can see that mentorship and appropriate application of academic resources like in Peter's case are good practices.

In conclusion, from the above discussion it can be seen that participants' practices illustrate how habitus and cultural capital applied within the field may positively reinforce each other, or compensate for one another, to produce practices that are beneficial to completion.

6.2.3 Barriers related to field attributes and related practices

With reference to the previous discussion on understanding the attributes of the field (see section 5.5), we can see that the field determines the relevance of habitus and cultural capital, stimulates the use of participants' habitus and cultural capital as well as facilitates the acquisition of these. However, this happens at the instance of both positive and negative experiences of participants, but here the focus is on the participants' negative experiences as they encountered the field.

Barriers that participants experience cut across different attributes of the field, and these include aspects of the doctoral programme as previously discussed (see sections 6.2.1 and 6.2.2); supervisor and supervision process and funding. I attempt to discuss here the latter two field attributes as sources of barriers and the practices they inform.

6.2.3.1 Practices informed by barriers in supervision

Participants experience barriers in their encounter with the field attribute of supervisor and supervision process, for instance regarding the unavailability of a supervisor. Martha's encounter as expressed in her comments (see section 5.5.2.3) indicate how her experience of a lack of availability of her initial supervisor informed her attempts to establish a good relationship with a prospective supervisor, who eventually also became unavailable. In the absence of a supervisor, Martha applies her knowledge of research as a lecturer to work on her own. In the face of these setbacks, Martha demonstrates the importance of determination, persistence, and ability to self-

manage. She ends up working largely independently on her study as a novice researcher who receives close to no input from an expert in her field of study.

Another practice related to supervision is expressed in the comments of Reuben (see section 5.5.2.4) who experiences delayed and conflicting feedback. Reuben recalls his practice to resolve the issue of conflicting feedback as follows:

In the faculty we have this Ph.D. colloquium ... my co-supervisor is the respondent to my work so with that if she gives me comment at the colloquium then I know that these are the comments from her so I insert them ... now I have both sides direction at par, then if there is any mix-up then I will ask them to resolve it there ... we sat down to say which direction should I go... I use it to benefit from her – my supervisor.

(Reuben, participant conversation, February 2014)

Reuben resolves the barrier of conflicting or delayed feedback by means of an institutional support structure: the faculty's Ph.D. colloquium, where his co-supervisor functions as the main respondent. Using this as a practice works as an opportunity for him as both supervisors' presence created the need to address conflicting feedback as it arises: it helps him to resolve and escape 'the conflicting feedback trap'. Reuben thus demonstrates being persistent, determined, goal-driven, and proactive as he uses one institutional resource to address weaknesses in another. We can see here that his habitus kicked into action, interfaced with his cultural capital of presentation and communication skills to inform his practice of using the institutional research resource to manage his challenge. His action of taking responsibility for the progress of his work to achieve completion, as he expressed, is relevant to academic completion. The use of an institutional research forum as a support structure goes beyond the supervision process. His use of this resource, the Ph.D. colloquium opens the door for him to benefit from peer influence and a closer interaction between students. The forum also provides an opportunity for academic socialisation. It can be deduced that Reuben applied a good practice to overcome the barrier of conflicting feedback from two supervisors. This supports the findings of Maestas, Vaquera and Zehr (2007) that student support is a significant factor for doctoral student success. Thus, we can also see here that for participants to succeed or steadily move towards completion they use different practices informed by the different barriers. Funding-related barriers as another field attribute-informed practice is presented in the next section.

6.2.3.2 Practices informed by funding as barrier

Barriers that participants encounter regarding funding inform practices that are stimulated by both their habitus and cultural capital. One of such barriers includes insufficient earnings from the work-study programme. For example, Paul encounters the barrier of lack of financial assistance as he could only work hourly and earns little as a tutor (see section 5.5.3). Paul expresses this as a barrier as he had to commit more time to his tutoring work to earn more, at the expense of his Ph.D. study. Thus, as a practice, Paul had this to say:

I have learnt to resolve those challenges ... I learn to do without some things and set priority ... save little somewhere in my budget, no luxury ... sometimes I learn to be patient ... getting yourself frustrated won't help, you have to be patient. (Paul, participant conversation, March 2014)

Paul's comments show that he applies his habitus of being able to manage his resources which he has imbibed coming from a poor family background (see section 5.2). In doing so, Paul makes sacrifices; he applies his ability to prioritise and work harder to receive more pay to overcome the financial situation that presents itself as setback. He expresses here his habitus of being tenacious and persistent: *I have learnt to resolve those challenges...*. His experience is a learning process for him in that indicates the need for endurance to overcome the financial barrier: *'... sometimes I learn to be patient ... I put in more hours ... to get something enough to look after my family ...'* (see section 5.2). This shows again the application of his habitus of being hardworking. However, this is at the expense of his health and time committed to his study, thereby hindering the progress of his work. In all of this, Paul's resolve and expression of his endurance is evident in his practice to manage the funding barrier.

Andrew's way of managing a funding-related barrier differs from that of Paul:

'From my teaching job at home I saved some money ... I left some for my family and came with some ... I called home for financial help over time when I ran out of resources ... the department decided to give me a teaching contract, yea what I would say, teaching assistantship ... I could focus on my studies.' (Andrew, participant conversation, January 2014)

Andrew's comments indicate his financial experience-related barrier, as he could not focus on his study without financial help. As a practice, he calls his family for financial assistance. Andrew's

original financial plan failed as he ran out of money and is left with no means of financial support except his family back in his home country.

Another practice is that Andrew applies his teaching skills to function as a teaching assistant in the department when he gets the offer of a teaching contract. He thus converts some of his cultural capital (teaching skill) into funding for his study. Given the findings from literature on the importance of funding at doctoral level (e.g. Maher et al., 2004; Herman, 2011a), the question arises whether doctoral candidates with their bags of rich academic resources should not be engaged by the university at the start of their programmes as a default.

In conclusion of this section on the consideration of funding as a field attribute, we note that participants express how they convert their cultural capital (academic resources, teaching skills) into a financial resource that sustain them towards completion. Funding plays a significant role as an institutional attribute as it relates to the field in connection to completion, especially when the institution funds the candidates. In confirmation with literature, scholars have frequently and repeatedly mentioned that the availability of financial resources is a critical factor in doctoral study (Maher et al., 2004). It is confirmed to accelerate progress and reduce the time it takes to complete doctoral study (Cloete et al., 2015). However, the literature fails to address how the unfunded candidates manage their finances to achieve completion, despite the delay they may encounter.

Some doctoral candidates are not awarded a bursary or scholarship, but like Paul and Andrew, they must struggle to earn an income working long hours because of the insufficiency of the amount that they are paid per hour. This results in more stress, loss of time and energy, and less attention to their academic work or research. An implication of these findings is that in a context of increasing access to higher education in general, and particularly in doctoral study, the field needs to change to accommodate students who do not have a middle-class background and have no funding available, such as many African doctoral students in this study. A more accommodating arrangement should be sought to address the various matters raised with respect to funding (but also with respect to other matters related to the nature of doctoral study and so forth), for example by employing doctoral candidates as contract lecturers as a matter of due course.

This raises the question as to whether there are variations between the completion practices of lecturer-participants and other doctoral candidates who have never lectured (see section 5.2). In The next section highlights some of the variations in participants' practices, based on the observations in previous sections (see section 5.5 and section 6.2).

6.3 The practices of lecturer-participants: the case for a different model of doctoral study

Participants' practices presented above indicate that they are informed by barriers they encountered. In addition to negative experiences, participants also present positive encounters that informed their practices to maintain consistency in their engagement with their doctoral study, which relates academically to completion. This section presents the practices of one specific category of participants: those who were lecturers.

The discussion in this section ties in very closely with the previous discussion in Chapter 5 (see sections 5.3, 5.4 and 5.5). As a result, to avoid repetition, references are made to these sections where need be. The presentation of lecturer-participants' practices is structured by participant for two reasons. Firstly, the previous discussion already establishes that the field attributes determine the experiences, relevant habitus and cultural capital that participants apply in order to establish practices for overcoming barriers. Secondly, there is an overlap in participants' experiences as they may have similarities in their experiences but different practices. Thus, the purpose of this section is to highlight the specific practices of the lecturer-participants in this study: Jehoram, Abigail, Reuben, Andrew, Solomon and Martha.

6.3.1 Jehoram's practice

Jehoram expressed previously (see section 5.5.1.1) how he did not experience any difficulty in relation to various aspects of the nature of the doctoral programme such as the choice of research topic. He complied with his supervisor's compelling suggestion for a different topic and compromised his research interest area in order to ensure a good supervisor relationship and progress. The practice of compliance worked for him, as he noted that his research proposal had been approved within a year's time.

Regarding research knowledge, Jehoram expresses how having acted as a supervisor before and carried out his own studies equipped him with the relevant cultural capital (see section 5.4.1.2). He had this to say:

My independence in being able to carry out a study on my own is what is assisting me ... I have been supervising and carrying out studies on my own (Jehoram, participant conversation, April 2014)

Jehoram's comments show that he works independently; his cultural capital of research knowledge helps him to apply the practice of working on his own. Thus, his academic background and current practice as a lecturer engaged in Ph.D. facilitated his completion.

6.3.2 Abigail's practice

In Abigail's encounter with the field attribute of supervisor and supervision process (see section 5.5.2.1), her prior experience with her supervisor as a lecturer during her Master's programme indicates a positive experience in the form of a good supervisor-student working relationship, beneficial mentorship, and an introduction to good research practice by her supervisor. As a result, she expresses that she never struggled. Abigail had this to say about her practice:

Doing a Ph.D. ... it's like doing and putting into writing my knowledge of research ... what I have been doing as a lecturer' (Abigail, participant conversation, April 2014)

Abigail's comments show that she puts into practice what she learnt from her Master's supervisor and what she taught as a lecturer. We can see collaboration in research as teamwork, the senior researcher working with students creates opportunities for learning and acquisition of various cultural capital. In her case, she learns to avoid pitfalls in thesis writing to navigate the research as she got research knowledge from teaching and marking. Here, Abigail improves her cultural capital, particularly her knowledge of research, in interaction with her supervisor. In other words, there are certain things in her habitus (complying with supervisor's instruction, determination, goal-focus and hard work) and cultural capital (existing knowledge of research, writing skills and competency in the management of her research project) that continue to be relevant and re-enforced at each stage of her doctoral journey. Again, we can see how being a lecturer engaged in Ph.D. study is beneficial to completion.

6.3.3 Andrew's practices

Andrew is also a lecturer-participant in this study who left his lecturing post to engage in doctoral study as a means of improving his social and financial status and academic career (see section 5.5.3). Regarding his experience, Andrew had this to say:

The department decided to give me a teaching contract based on my teaching experience back home ... I can pay for my accommodation ... focus on my studies ... (Andrew, participant conversation, January 2014)

Andrew's comments indicate the use of his teaching skills (gained from having previously been a lecturer) facilitated his ability to raise financial support as he is engaged in a teaching contract within the department. Andrew functions as 'a fish in water' with respect to the field attribute related to the nature of doctoral study, particularly in terms of presentation of work in a research forum as he had this to say:

Creative and critical thinking, public speaking and communication skills that we must develop ... to present our work to our colleagues in our university and other institutions ... were the major things I learnt that helped me (Andrew, participant conversation, January 2014)

As he engages in doctoral study, Andrew expresses that he is developing and acquiring new research skills such as communication skills, creative and critical thinking skills, and presentation skills.

From the discussion above, we can see Andrew's prior engagement as a lecturer and current engagement in teaching in his department still allow him to further develop key skills while also having the required financial support. Various practices he pursues (like engaging in the research forum) combine with his determination and hard work (*habitus*) and his teaching skills (*cultural capital*) to eventually help him towards completion of his study.

6.3.4 Solomon's practice

Solomon, another lecturer-participants, expresses his own practice, as he had this to say:

I do what I had planned, focus and make time for my study. I think that has helped ... Each time I got stalled, I will either send an email, or walk to my supervisor's office or ask for an appointment way before the scheduled time for our meetings ... or seek help from other members of our research team or senior students in our field of study ... The principle has been discipline ... each time I send a chapter, I will start working on another one especially when I started doing my analysis chapters ... I compare the comments made on the one which I have received with the one I had been working on and try to see if I can make it better, and this worked very well for me, and it helped ... never at any time had [I] a moment when I will be relaxing, waiting on my supervisor. I think that disadvantages you as a student ... (Solomon, participant conversation, May 2014)

Solomon's comments, like Andrew's, indicate that his habitus of being focused, organised and disciplined enables him to use the field attribute of supervision support in a productive way. He keeps contact with his supervisor when he finds need to do so and applies his cultural capital. Both his habitus and cultural capital inform his being effective in the field (see section 5.5.2). More importantly, Solomon's comments indicate his deep understanding of the field and practices (like being able to walk over to his supervisor's office) that require a close engagement with the field which is facilitated by the fact that he is a staff member in a department. It shows collegiality in action. In this respect, his supervision experience is very different from that of Jacob (who is not a lecturer-participant); it is also different from that of Martha and Reuben who, despite being lecturer-participants, experience supervision as a barrier to be managed (as shown above).

6.3.5 Reuben's practice

Reuben as a lecturer-participant, unlike the others, does not have a positive supervision experience, specifically in relation to feedback. He expresses delayed and conflicting feedback from his supervisors as a barrier (see section 5.5.2.4), which he, however, has been able to skilfully navigate by his use of the Ph.D. colloquium. Reuben's practice, like that of Andrew's, also shows his good understanding of the institution and the type of structures available to students. Being a lecturer-participant helps him to gain an understanding of the complex make-up of a university and faculty, and the way students can use different support structures to overcome barriers to completion.

6.3.6 Martha's practice

Like Reuben, Martha also had a negative supervision experience in terms of a lack of availability of both her initial supervisor and a second supervisor that was appointed for her (see section 5.5.2.4). As she noted: '*I kept working without any guidance.*' However, coming to doctoral study with her academic background of being a lecturer, Martha was able to work independently, drawing on her lecturing experience back in her home country.

From Martha's and Reuben's negative encounters with the supervision process, we can see the way lecturer-participants are able to self-help, engage in help-seeking behaviours, and employ their knowledge of the institutional environment to resolve matters that could bring about frustration, stagnancy and possibly a dropout from the programme for non-lecturer-participants.

6.3.7 Summary

The experiences of lecturer-participants indicate how the university as a whole act as a learning space that provides experiences, and creates opportunities to apply academically-relevant

knowledge, skills and competencies, and imbibes and activates aspects of field-relevant habitus that are relevant to Ph.D. completion. Moreover, their lecturing positions provide a motivation to participate in the doctoral study as part of an academic career trajectory. The category of lecturer-participants fits more closely into Bourdieu's description of someone operating 'like a fish in the water' as they encounter the field of doctoral study.

The discussion of the practices of lecturer-participants suggests that the typical model of doctoral study in place in universities in South Africa, such as UWC, needs to be critically reviewed. Most of the 18 participants in this study, of which six were specifically featured in this section as lecturer-participants, expressed various combinations of barriers with key attributes of the field of doctoral study across this chapter – particularly in relation to funding, supervision, and aspects of the nature of doctoral study (such as understanding the research process). The analysis of the practices of lecturer-participants, in particular, shows their ability to better navigate the field and institution, while having the problem of funding resolved at the same time. As far as funding is concerned, it should be noted that even among the non-lecturer-participants only few had bursaries (e.g. David, Naomi, and Ruth) and in most cases the funding ran out before they had completed their study.

Further research should be conducted to investigate the possibility of changing the 'default' model of treating doctoral study merely as an academic programme and doctoral candidates primarily as students. The experiences of lecturer-participants in this study of African doctoral students suggest that a model of doctoral study different from the prevailing Anglo-Saxon model may be more appropriate. Given the barriers to completion noted above and the different experiences of lecturer-participants and non-lecturer-participants, a more appropriate model would involve a contractual relationship (of working and studying), such as the one used in some European countries, where the doctoral candidate is regarded as an 'employee' and 'junior staff member' of the university with duties, rights and a regular salary (Golde & Dore, 2001).

The lecturer-participants show that they have the relevant cultural capital and habitus that can be converted to generate the funding necessary for their doctoral studies. The findings in this study show that candidates who function as lecturers and teaching assistants report a positive impact of this on their completion (as long as the work commitments are not overly burdensome and time consuming). This therefore confirms similar arguments by Golde (2005) and Lovitts (2001) as discussed in Chapter 2.

The following section discusses key theoretical learnings from the study.

6.4. Dynamic conceptual interaction in the theory of practice

Bourdieu's theory of practice, as embodied in the 'mathematical model', does not fully capture the complexity of the interaction of the four concepts: habitus, cultural capital, field and practice. What does it mean to have the various attributes in one's habitus from the different sources of motivation found in the data and to have different kinds of cultural capital from the different sources of influence, all interacting with each other and the field, and what does this mean in relation to practice?

As has been shown in section 6.2, barriers encountered by participants are determined by the field and their practices are determined by field-relevant habitus and cultural capital. In other words, the field does not add up mathematically with cultural capital and habitus to produce practice. Rather, it conditions the participants' agency in various ways. Therefore, in participants' encounters with the field, they employ problem-solving practices related to their habitus and existing cultural capital.

Bourdieu emphasises habitus as the vehicle that cultural capital rides and describes habitus as the impetus of cultural capital (Bourdieu, 1990a). This study has used the concept of habitus in a way that does not fully reflect this notion. Rather, findings on practices show that at the point of encountering a barrier within the field, candidates resolve apply practices that variably involve habitus, through compensating for a lack of cultural capital and vice-versa (e.g. engaging in help-seeking behaviour) or using other aspects of the field to compensate (e.g. using support structures to compensate for supervision barriers).

However, the purpose of this study has not been to try and engage deeply with Bourdieu's theory of practice; it has merely been to use its conceptual tools to gain deeper insights into African doctoral students' practices to completion. What has been learnt from the study in those terms requires a return to the conceptual-analytical framework that was suggested in Chapter 3. The main point there has been to bring together Bourdieu's concepts from the theory of practice with the concepts discussed in the literature review chapter to identify empirically what the issues are around African doctoral students' completion. The conceptual-analytical framework that has been established argued that personal and psychological factors as well as some socio-cultural factors fall under the notion of habitus and can be observed empirically as such. Socio-cultural factors such as family and cultural background, social network and academic factors are considered and empirically observed as cultural capital (which overlaps with habitus in some cases). The barriers and factors dealt with as institutional factors in Chapter 2 represent attributes of the field of

doctoral study (but may be overlapping empirically in the determination of participants' practices for completion).

Exploring the resources that students bring to bear in their engagement with the field of doctoral study, the influence of different sources of habitus (especially motivation) and different relevant aspects of habitus, such as persistence, has been highlighted. Motivation may be forward-looking, intrinsic, or backward-looking, which they may account for the different practices. The study found that specific relevant aspects of habitus for the field of doctoral study stem from the family background (nuclear and extended) and workplace experience. These include family-based cultural beliefs, values and ethos, the family's socio-economic background (hardship producing work ethic, persistence and so forth), socio-cultural background (valuing education highly) and personal qualities of the individual. The study found that the African doctoral candidates in this study are well equipped with a habitus of determination, hard work, persistence/persistence, a sense of self-worth, a desire to gain a higher social and academic status and to self-actualise, being goal-driven, and showing commitment to tasks. These aspects of the habitus are academically relevant to doctoral study completion.

The study moreover found that specific relevant cultural capital to the doctoral study field is acquired from several sources but mainly from prior education, teaching and research-related work experience, as well as from significant social experiences such as migration, to acquire research skills, social skills (e.g. networking, interpersonal skills, cultural competence) and the ability to navigate the complexity of doctoral study, and the structures and processes of the university.

It was found that an appropriate habitus compensates to some extent for a deficit in cultural capital. For example, hard work, spending more time, seeking help from a supervisor, colleague or peers compensate for lack of key skills (e.g. English language skills). Lacking one kind of cultural capital may also be compensated for by another kind of cultural capital, whereby the ability to continuously learn enables the ability to continuously adapt to the research environment. Furthermore, cultural capital can be a source of motivation as well; for example, the ability to present and write well may act as a source of motivation.

Contrary to Bourdieu, the study also found that the cultural capital of African doctoral candidates is not commensurate to the level of formal education of their parents as many of them have parents with only basic education and most come from poor and working-class backgrounds (Bourdieu, 1966 in 1974). Candidates in this study alluded to the academic influence of their siblings, extended family members' educated network and family friends who have a high academic status.

Therefore, in the African context, the generation of a habitus that is relevant to doctoral study extends beyond the nuclear family setting. Bourdieu (1990) emphasised habitus as an embodiment of history; perceptions and beliefs that bring about particular actions (Bourdieu's (1977; 1986); a combination of experiences acquired in the family; actions consistent with past experiences; and an indication of continuity between the past and present experiences (Swartz, 2002). In the African context, it appears that aspiration rather than history is embodied in the habitus – as indicated in the different sources of motivation discussed – even though aspects of habitus such as work ethic and so forth may clearly be positive embodiments of influences in the upbringing. Thus, the transfer of cultural capital as shown in this study is also not so much from one generation to the next, but is informed by aspects such as the influence of siblings and the family social networking as viable means of transferring cultural capital that is academically relevant to doctoral completion.

Given the level of Ph.D. study, a large portion of relevant cultural capital necessarily originates from outside the family members' academic and cultural backgrounds. Much of the cultural capital relevant to doctoral study, such as knowledge of research, thesis writing skills and communication skills and so forth, have been acquired during previous studies (e.g. Master's studies). Candidates also generate new cultural capital from the academic working environment (especially as lecturer-participants) and through being engaged in an academic network.

The discussion on motivation has shown the strong desire of African doctoral students to be educated and to achieve educationally, which generates determination to succeed, academic self-confidence, goal-drivenness and a problem-solving attitude towards barriers in the learning space (see Swann, 1999). Circumstances in the academic workplace also become internalised as added experiences to earlier socialisation, indicating a continuous restructuring of previous experiences or encounters with the outside world. The individual participants' habitus experiences continuity, modification and change across time and space with new dispositions and habits acceptable to a new social setting being imbibed, which are different from those of the setting that created the habitus (Wacquant, 2006).

Contrary to the views of Bourdieu (1977) on the issue of social class, this study found that candidates' determination, persistence, self-esteem, motivation and resources such as social skills and a desire for academic and social status, serve as a drive to achieve academic status and, in most cases, upward social class mobility. It thus found that candidates' low family socio-economic class and status functioned as source of motivation to engage in doctoral study – not to reproduce that class and status but to upgrade it.

6.5 Summary

This study set out to explore the practices of African doctoral candidates using the empirical indicators spelt out in the conceptual-analytical framework (see Table 3.1 in section 3.4). As shown in Chapters 5 and 6, the use of the conceptual-analytical framework has not only facilitated data collection but also the analysis of the data and drawing out of findings as presented in the preceding sections. The conceptual argument, based on the study's findings, is that there is much complexity in the dynamic interaction of the concepts in Bourdieu's 'mathematical model'. The study therefore argued that there are dynamics by which deficiencies in the field and in the resources embodied by participants can be compensated by means of other aspects of the field, cultural capital and habitus and with new learning and adaptation to generate practices that are beneficial to completion. It has shown that the field is key in assigning relevance to cultural capital and habitus. Furthermore, as participants interact with the field, they draw experiences from each other within the research team, and the social and academic environment, which may be experienced directly or by proxy. Moreover, of particular importance in this chapter is the discussion of the experiences of lecturer-participants, which has provided evidence for making an argument for a model of doctoral study that breaks with the Anglo-Saxon tradition and is more closely related to a model of candidacy that involves a contractual working *and* studying relationship. Finally, a number of findings have been highlighted that diverge from Bourdieu's argument. In particular, the study found that African doctoral students' habitus is derived from a wider influence than primarily the nuclear family (especially parents), in that sibling influence, the influence of other family members (especially well-educated ones) and a wider social network are important. However, it must be cautioned that this analysis is not meant to be 'generalisable' and has been based on a specific conceptual-analytical framework, which prioritises certain empirical matters over others. Future studies will be able to expand on, confirm and disconfirm the findings made here. For example, it should be clear that there are many more practices of doctoral students that are beneficial to completion.

Table 6.1: Findings regarding aspects of the field, cultural capital, habitus and practice relevant to doctoral study completion

Theory	Relevant aspects (noted in data and findings)	Theory	Relevant aspects (noted in data and findings)
Habitus	<ul style="list-style-type: none"> • Motivation (forward-looking, intrinsic and backward-looking motivation) • Compliance and rebelliousness • Persistence • Commitment to task, work ethic (based on family cultural beliefs and values, siblings' and extended family members' academic influence, workplace experience) • Determination and being goal-driven • Sense of responsibility • Desire to achieve higher social status, academic status, self-actualise 	Cultural capital	<ul style="list-style-type: none"> • Research and academic skills (and knowledge of the research process) • Writing, presentation and other communication skills • Prior learning and ability to continuously learn • Language skills (especially English language skills as well as transferable language skills) • Social skills, diversity skills, ability to adapt and cultural competence • Creativity • Networking ability
Field	<p>The nature of doctoral study</p> <ul style="list-style-type: none"> • Information on the programme, department and institution • Choice of research topic, area of interest • Thesis writing skills, effective use of English language • Writing and presentation of work in progress <p>Supervisor and supervision process</p> <ul style="list-style-type: none"> • Supervision as support structure in terms of giving professional guidance, administrative expertise and pastoral support • Supervisor's availability • Lack of timely feedback • Conflicting feedback <p>Funding</p> <ul style="list-style-type: none"> • Lecturing contract • Work-study as financial support • Teaching assistantship • Scholarship 	Practice	<p>Lecturer-participants' practices</p> <ul style="list-style-type: none"> • Consulting colleagues and peers • Engaging institutional support structures (e.g. research forum, Ph.D. colloquium) • Complying with supervisor's instructions • Working independently • Functioning as lecturers <p>Non-lecturer-participant</p> <ul style="list-style-type: none"> • Consulting more regularly with the supervisor • Establishing and maintaining cordial working relationship with the supervisor • Networking and being an effective team player • Engaging in regular work presentations • Employing problem-solving practices related to the habitus and cultural capital (e.g. self-manage) • Functioning as tutors and research assistants

Table 6.1 summarises the key aspects that were found relevant for completion in relation to the four concepts of field, cultural capital, habitus and practice. The table shows that the study emphasises aspects of habitus that were categorised in Chapter 3 in terms of the literature as

psychological factors (such as motivation), family factors (such as the level of family education and status) and cultural background (beliefs, values, home language), whereas bio-social factors (such as age, marital status and family responsibility) did not feature strongly as relevant.

In relation to cultural capital, the study found that family factors were important but that family must be conceived in the African sense as going beyond the nucleus of parents (and siblings), and that socio-economic status and occupation of family members provided more a habitus of motivation (backward and/or forward looking) than relevant cultural capital. The emphasis with respect to cultural capital relevant to doctoral study in the study is on so-called academic factors such as prior learning; relevant (academic) knowledge and skills; attitudes, skills and competences learnt in the academic workplace; an understanding of the university and doctoral study; and learning from the supervisor, other academic and research colleagues, peers and role models.

The study has also found that there are three key attributes of the field of doctoral study that are considered as most relevant to completion, whereby it has focused on those aspects that participants consider as barriers to completion. The first attribute is the nature of doctoral study and related aspects such as the choice of the research topic, thesis writing, the use of the English language, and writing and presentation of work in progress. Second is the relationship with the supervisor and aspects of the supervision process (such as professional guidance, administrative expertise, pastoral support, supervisor's availability, lack of timely feedback and conflicting feedback). Thirdly, funding has been highlighted (and related aspects such as having a lecturing contract, work-study as financial support, teaching assistantship, and scholarship). Matters of institutional culture as they are typically discussed in South African higher education (e.g. in terms of racism and 'whiteness', cf. Higgins, 2007) have not been mentioned by participants, (most likely because the study was conducted with African doctoral students in an HBU). Nonetheless, it should be clear that there are many aspects of the cultural capital of African doctoral students that are not valued or are deemed irrelevant by the field.

Finally, in terms of practices, the findings can be grouped into two categories, i.e. practices of lecturer-participants and non-lecturer-participants, although they should not be seen as rigid attributes but more as a tendency that is not mutually exclusive. More typical among lecturer-participants are practices of consulting colleagues and peers, engaging institutional support structures, complying with supervisor's instructions, and working independently. Non-lecturer-participants show a tendency towards consulting more regularly with the supervisor, seeking to establishing and maintain a cordial working relationship with the supervisor, networking and

being an effective team player, doing regular presentations, and employing problem-solving practices such as self-management.

The next chapter presents the summary, implications, contributions and conclusions of this study.



CHAPTER 7: SUMMARY, CONTRIBUTIONS AND CONCLUSION

7.1 Introduction

This study set out to identify the practices employed by African doctoral students at the University of the Western Cape to attain completion of their studies, as phrased in the main research question: *What are the practices of African doctoral students to attain completion of their doctoral study at the University of the Western Cape (UWC)?* The study hinged on Bourdieu's concepts of habitus, cultural capital and field to investigate the practices used by students within the field of doctoral study. The specific sub-research questions that the study addressed include: (1) *What are the habitus and cultural capital of African doctoral students doing doctoral study at UWC?* (2) *What are the experiences of African doctoral students in the doctoral process at UWC?* (3) *In what ways do African students in UWC manage the barriers they encounter in the doctoral process?*

The concluding chapter is presented in several sections. Section 7.2 below presents a summary of the study and main findings. Section 7.3, presents the contributions and highlights the implications of the findings (conceptual, contextual and methodological) from Chapters 5 and 6 and related recommendations, while section 7.4 presents the limitation of the study. Section 7.5 presents recommendations for further research and the chapter ends with closing remarks.

7.2 Summary of the study and main findings

7.2.1 Overview of the study

The purpose of this study was to identify the practices employed by African doctoral students to complete their studies at UWC. The study presented a review of literature to establish the attributes of the field of doctoral study and the factors that influence doctoral students' completion of their studies. The review started with literature on the nature and social functions of doctoral study, and the different types of doctorate, whereby the academic doctorate is the most prevalent in the South African higher education system. It also highlighted the need to renew the ageing and demographically non-representative faculty and professorial staff, along with the need to expand the higher education sector in general and doctoral study in particular. The study also reviewed literature on doctoral supervision models, highlighting the strengths and weaknesses of these models with an intention to understand candidates' experiences in the doctoral process regarding supervision. The chapter then focused on a review of literature on factors that influence

completion, categorised as personal factors, socio-cultural factors, and contextual factors, and on practices (or strategies) to attain completion.

The four concepts of Bourdieu's theory of practice are discussed in Chapter 3 in order to formulate a conceptual-analytical framework that could guide the understanding of the participants' experiences and practices in the field of doctoral study. The concepts of habitus and cultural capital are reviewed to consider their relationship with each other, and with attributes of the field, to produce certain completion practices. Bringing together the discussions in Chapter 2 with Bourdieu's concepts, a conceptual-analytical framework is presented in section 3.4, which guides the collection and analysis of data.

The study used a qualitative research design and data collection instruments such as in-depth interviews. The target population involved African doctoral candidates from which a sample of 18 participants was drawn from all faculties of the case university, UWC (except for Dentistry where there were no registered African doctoral students in 2013). Purposeful and snowball sampling techniques were used to select the participants. All participants were doctoral candidates, i.e. students who had passed the proposal stage of the process and been admitted into candidacy of the doctoral programme. The data was analysed using the lens of the conceptual-analytical framework established in Chapter 3. The last two chapters then presented the data, discussion and findings of the study to provide answers to the three sub-research questions. This is summarised and presented in the next section below.

7.2.2 Summary of main findings and implications

The presentation here on the findings of the study is structured according to the research questions, with emphasis on the main theoretical concepts of the study, i.e. habitus, cultural capital, field and practice. With reference to practices, the study did not initially set out to focus on the field, but the findings show that practices that impact on completion could only be initiated through the interaction of relevant habitus and cultural capital as determined by the attributes of the field. This made the concept of field in Bourdieu's theory significant both at the meso (institutional) and micro (individual participant) levels.

With reference to sub-research question one, which asks about the habitus and cultural capital of African doctoral students doing doctoral study at UWC, from the discussion in Chapter 5 it is found that participants enter into doctoral study with a habitus from their extended family background, personal experiences (including migration experience in some cases) and the

workplace. However, the field determined the relevance of their habitus at different stages of the doctoral process.

In particular, the discussion on participants' academically relevant aspects of habitus that facilitate completion highlighted that there are basically two key issues: motivation and persistence. These are acquired from the family socio-economic background, socio-cultural beliefs, values and practices, personal experiences, and academic/professional experiences. The participants' habitus is revealed as an implicit attitude, such as being motivated and persistent, as they relate academically to completion.

What has also been shown, importantly, is that the habitus has very different sources of motivation and persistence, which include (1) family background such as (a) a socio-economic poor family background, (b) family responsibility (e.g. wanting to be an example to one's children), (c) the valuing of education in the family; (2) personal status and integrity; (3) and cultural beliefs and values in conformity with culture (or rebellious against culture). This shows the connection between motivation and persistence as psychological and socio-cultural attributes in the academically relevant habitus.

Chapter 5 indicates the socio-cultural and academic influence on cultural capital. Prior to their enrolment into doctoral study, participants' pre-doctoral knowledge varies but is deemed sufficient to get started with the doctoral process. The knowledge, skills, abilities and competence considered as cultural capital that influence the participants' academic progress stem from their social and academic networks, prior learning, and experiences that are related to socio-cultural factors and academic factors and connected to completion. Once they enter the field, participants need to demonstrate and draw on their abilities, such as presentation skills, interpersonal relationship skills, ability to collaborate, diversity and social skills, and so forth, in the context of doctoral study to become effective players in the quest for completing their doctoral study. Following Bourdieu's description of capital as specific resources valued by a field, the researcher conceptualised knowledge of research as 'research capital', which is a major resource needed by candidates to achieve completion (see section 3.3.2). Furthermore, the study showed participants' ability to convert different cultural capital into academically relevant resources as facilitated by relevant habitus (e.g. help-seeking behaviour, persistence, desire to learn) (Jaeger, 2009).

What came out clearly was the interplay of habitus and cultural capital, and thus the question arose how attributes of the field that were experienced by participants as barriers to completion would relate to the habitus and cultural capital that they possessed. This was further investigated in terms

of participants' experiences of the doctoral field and particularly their practices in relation to barriers to completion. In this manner, the study elaborated further on the second sub-research question concerning the experiences of African doctoral students in the doctoral process, and on the third sub-research question, which deals with the ways that African students manage the barriers they encounter in the doctoral process.

Barriers were shown to arise from lacking cultural capital (e.g. lack of high-level English language skills) as well as from habitus (e.g. lack of compliance with supervisor's instructions). The discussion showed that experiences of barriers produced a variety of practices that typically would seek to compensate a weakness with a strength, or develop new strengths. Participants' practices are facilitated by relevant habitus and cultural capital, which to some extent, if lacking, may be compensated vice-versa, and the attributes of the field such as aspects of the nature of the doctoral programme, the supervisor and supervision process, and funding, all of which influenced participant's completion. The study found that supervisors who perceived and understood students' habitus stimulated the acquisition of more academically relevant habitus and, related to that, that supervisors' support, encouragement, pastoral care and mentorship facilitated doctoral candidates to use their habitus (of hard work, persistence, sense of self-worth) where necessary to acquire additional relevant cultural capital such as research skills, knowledge and competences through imitation of their supervisors' expertise, complying with supervisors' instructions and adjusting to their supervisor's area of research interest. In such cases, the supervisors were found to be most impactful as capacity builders on the candidates in the doctoral process.

On the other hand, this study also found that the support structure of supervision could present a serious barrier to completion for some candidates, in cases where there was, for example, a lack of consistent flow of feedback, conflicting feedback and a generally poor working relationship. In this respect it was found that institutional support systems like a research forum and a Ph.D. colloquium were used by participants to address feedback challenges, to make progress and extricate themselves from supervision challenges while simultaneously improving on their presentation skills and knowledge of their research topic or area of interest. It also showed that individual doctoral candidates experience, perceive, and use the available institutional support structures differently and for varied purposes. Overall, the most significant barriers were found in the field itself and particularly in relation to three attributes of the field: the nature of doctoral study, supervisor and supervision process, and funding.

An important aspect of Bourdieu's theory relates to the fact that one form of capital can be converted into another form of capital. As far as the funding challenge is concerned, the discussion

of the completion practices of lecturer-participants has shown the benefit of formalising the conversion of doctoral candidates' academically relevant cultural capital into funding for their study while simultaneously acquiring more academically relevant cultural capital for their study (and contributing to the development of higher education). As shown in Chapter 5, African doctoral candidates' need for funding and their relevant prior learning and resources positioned them to take various posts as lecturers, tutors, teaching assistants and research assistants. However, only some work engagement facilitates completion; it may drain their energy and time, and impact very little on their learning process. The workplace experience and engagement as lecturers appeared to have a positive influence on completion; this has also been shown in previous studies (e.g. Golde & Dore, 2001). While any work in the academic environment creates an opportunity to adjust to the university system to which a candidate may return after graduation, paramount to the candidate is the issue of completion and the benefit of early completion. The review of the experiences and practices of lecturer-participants in doctoral study suggests that engagement as a lecturer (in a working and studying model of doctoral candidacy) impacts in the most beneficial way on imbibing an academically relevant habitus and acquiring additional cultural capital relevant to doctoral study completion.

From a theoretical standpoint, the above findings imply that candidates from poor socio-economic background who are perceived as lacking relevant resources, such as research-related competences, skills and knowledge to engage optimally in the field of doctoral study, can change their chances of academic success by means of engaging in relevant practices. Bourdieu's argument (1977) that family background is a major determinant of academic success does not seem to take account of this. Contrary to Bourdieu, this study argues that a poor or working class background does not need to disqualify doctoral candidates from academic success. The analysis of habitus showed that it is class aspiration (and desire for upward social mobility) more than actual class position (history) that provides the mainspring of the students' drive. Moreover, even students from very economically deprived backgrounds possess relevant attributes and attitudes (such as an ethic of hard work, persistence, etc.) with which they can make a success of their academic endeavour.

7.3 Limitations of the study

There were several limitations in this study. The study has used a qualitative design and was conducted on a small scale with doctoral candidates who had past the proposal stage of their studies. It should be clear that the findings are limited to the experiences of these 18 candidates and their completion practices (as against starting practices), and that (statistical) generalisation is

not be possible. However, it is possible to transfer the findings of this study to other contexts (as may be deemed applicable by the reader) and to use them for further study and testing.

From the onset of the study, generalisation of the findings was not the purpose, given that the practices of the individual depend on the individual's habitus and cultural capital that varies across their personal, family, cultural and professional background. Although practices are defined by the field of doctoral study, they can also vary, since it is plausible that the influences of the field attributes for which practices are needed also vary with the individual within the same institution and discipline.

Moreover, due to the focus of the study, students in the previous stages of the academic cycle before the doctoral study process such as Master's programme and bachelor's degree programme were not considered as part of this study, nor was the extent of prior learning of the participants in the study from such programmes assessed. It was found, however, that the learning from these prior stages is considered highly relevant. In addition to that, academic workplace experience was found to be highly relevant (as shown in the discussion of the practices of lecturer-participants).

Another limitation is that some participants were apprehensive of the outcome of the study, given the xenophobic actions that were ongoing when the data collection process took place. Some were reluctant to share their negative encounter with attributes of the field, such as supervisor and supervision process, for fear of being victimised. As a result, all accounts were anonymised and, given the confidentiality concern, the study did not include an analysis of the practices of candidates according to demographic factors such as nationality, religion and gender. These factors may have informed different practices of the participants; thus, they could be considered for future study on doctoral candidates' practices.

Another impact on the study was financial limitations. As a self-sponsored student, the researcher could not engage in a wider scope or a more extensive study; initially this study was conceived to include also African doctoral candidates from neighbouring historically advantaged universities.

Furthermore, the availability of African doctoral students as informants in the case study institution was a limitation since most of them function like part-time students. This limited the study sampling method and required engagement in snowball sampling techniques. Moreover, the initially prepared quantitative data collection instruments could not be used as planned. Even engaging with the available few (the 18 participants) was very time consuming as there were always reasons to reschedule interview meetings due to pressure from supervisors' demands for chapters to be ready and papers to be submitted for conferences, and sudden changes in their

personal engagements. This exercise demanded patience, and for all volunteered participants to be interviewed, reminders had to be consistently sent, re-appointments had to be made and accepted, and cancelled appointments rescheduled. The need to replace some participants posed a further limitation on the study.

The study also showed the limitations of the researcher's own knowledge, skills and abilities (or let's say, cultural capital). Doctoral study is a learning process and the researcher had to learn many things such as how to manage supervision relationships. In particular, supervision of this study was a challenge as the researcher's final supervisor was actually the third main supervisor since the inception of this study. In the process, the study meandered several times before gaining a focus and stability. In many respects, the researcher found her own experience reflected in the study in terms of findings such as remaining goal-driven and tenacious in the face of various barriers.

7.4 Suggestions for further research

The study has highlighted the need for further studies into doctoral students' practices. Understanding of students' practices to gain completion could be investigated using different approaches in order to highlight how they influence completion. As the South African higher education system and institutions are continuously faced with the pressure to increase the doctoral graduation rate, finding ways to deal with the challenge is critical. Further research should be undertaken as suggested here.

For an expansion of the knowledge base of doctoral study in South Africa, it is recommended that this same study be carried out using other theoretical underpinnings. More data can be collected using other forms of instruments. The same applies to the analysis done in the study as there may be another way to analyse the data as well. Thus, further research could be carried out to extend the knowledge base of the study. Another study could be conducted in a historically white university due to possible variations that may still exist in these universities. Further research should also be conducted with a focus on gender and other ethnic/racial population groups of students to show if variation exists in the ways doctoral candidates use their academically relevant habitus and cultural capital during the doctoral study process to complete their studies.

In addition, the study was not a comparative study but focused on only doctoral candidates from one university and the African population group. Thus, further study involving students from other levels of qualification such as the Master's programmes should be conducted to generate outcomes that could be compared in terms of students' practices adopted at different levels of postgraduate

studies. Such research is needed to determine and highlight possible changes in attitude and differences in their practices according to their programmes of studies.

Finally, further investigation is required to focus on the funding/financial support as field attribute that doctoral candidates encounter and its impact on doctoral completion. This study has advanced the argument, based on the experiences of lecturer-participants, that the model of doctoral study in South Africa should change to accommodate doctoral candidates ‘by default’ as junior staff members (in a working and studying contract) in the university rather than seeing doctoral study merely as another level of academic programme and doctoral candidates primarily as students. Moreover, research into the workloads and salary structures of academic staff is also needed in order to inform an acceptable level of equity and productivity output of faculty and students. In addition, such research should also consider the roles of postgraduate schools, doctoral academies, and the like, and the ways they facilitate (or hinder) doctoral study completion. Such research may address the doctoral pipeline congestion which currently exists and which limits the production of doctoral graduates.



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APPENDICES

Appendix 1: Gate-keeper permission letter



UNIVERSITY of the
WESTERN CAPE

Request to Conduct Research at the University of the Western Cape

Hector Petersen Residence
University of the Western Cape
PMB X17, 7535, Bellville
5th June 2013.

The Registrar,
University of the Western Cape (UWC)

Re: Permission to Conduct Research Study

Dear Professor,

My name is Benedicta Daniel-Oghenetega, a doctoral student in the Faculty of Education at UWC under the supervision of XXXX.

I am writing to kindly request permission to conduct research for my doctoral thesis at the UWC. The title of my study is: *'Doctoral study in South Africa: Exploring practices adopted by African students to attain completion in the University of the Western Cape'*. My study seeks to understand the strategies adopted by African doctoral students attempting to complete their studies. I am happy to provide you with my research proposal should you have need of it.

To conduct this study successfully, I will need access to African doctoral students at UWC, their supervisors and university documents. These include enrolment and graduation records, institutional report on Ph.D. programmes, implemented supportive policies and strategies. Please let me know at your earliest convenience if my request has been considered.

Yours sincerely, Benedicta Daniel-Oghenetega (email: 2921628@uwc.ac.za Cell phone: +27 73610834)

Appendix 2: Ethics clearance certificate



UNIVERSITY of the
WESTERN CAPE

OFFICE OF THE DEAN DEPARTMENT OF RESEARCH DEVELOPMENT

29 October 2013

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by:

Mrs B Daniel-Oghenetega (Education)

Research Project: Doctoral studies in South Africa: An exploration of the completion strategies adopted by black South African students in Ph.D. studies in selected universities in the Western Cape.

Registration no: 13/9/13

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

Appendix 3: Flyer to Solicit Participants for Study

Attention: African Doctoral Students

I am conducting a research study and I need you!

I am looking for African doctoral student volunteers to be interviewed on their doctoral journey and strategies that are contributing to and enhancing their academic success throughout their studies.

Please help!

If you are not an African doctoral student, but know someone who is, please inform the researcher and also give this to your friend who is and may be interested in the project.

All information will be confidential. You will be screened through personal contact or via email. Benefits of participation include furthering research in the area of African doctoral students attaining successful completion of studies in university.

Note: This research is being conducted through the UWC with approved project number 13/9/13 by the University Senate Ethics Committee.

Contact Researcher: Benedicta Daniel-Oghenetega

2921628@myuwc.ac.za Mobile phone: +27 736 108 349

Selection Criteria for Study

- Participant must be an African doctoral student at the University of the Western Cape who has completed at least one year of doctoral studies.
- Participant must describe himself/herself as an African.
- Participant must be willing to discuss their experiences in terms of barriers and enhancers that contribute to their academic progress and eventual success in their current research project while the researcher listens, records and transcribes later.
- Participants must be willing to give correct information and not falsify or exaggerate information.
- Participant must be willing to be contacted later for member checks.

Appendix 4: Information letter



**UNIVERSITY of the
WESTERN CAPE**

INFORMATION LETTER

Room B4, Hector Petersen Residence,
University of the Western Cape, Belhar

My Fellow Ph.D. Students,

My name is Benedicta Daniel-Oghenetega; I am a Doctoral student at UWC under the supervision of XXX. The title of my study is: “Doctoral study in South Africa: Exploring practices adopted by African students to attain completion in the University of the Western Cape”.

The focus of my study is the completion strategies adopted by doctoral students from a strength-based point of view. Consequently, the study seeks to understand how some doctoral students can overcome the barriers to completion that several others find difficult to surmount.

The purpose of this letter is to seek permission to interview you, complete the questionnaire and participate in focus group discussion. I will endeavour to conduct the interview with minimal disruption to your work. I will also adhere to all research ethical practice as I assure you of the following important ethics principles:

Participation in this study is voluntary and you may withdraw at any stage of the study if you wish to do so. If you wish not to permit the researcher to record the interviews, this will be respected, and your privacy and anonymity will always also be secured. Please note that all relevant information regarding the research will be available to you if you wish.

Please could you complete the consent form at the end of the letter and return same to me.

Yours sincerely,

Benedicta Daniel-Oghenetega (email: 2921628@uwc.ac.za Cell: 073610834)

Appendix 5: Informed consent form



UNIVERSITY of the
WESTERN CAPE

Informed Consent Form

I, the undersigned, give consent to participate in the research undertaken by Benedicta Daniel-Oghenetega, a Ph.D. student at the University of the Western Cape.

I understand the information about the study provided in the covering letter and I have of my own volition decided to participate in the study.

I have also been assured that all ethical practices as it pertains to research as outlined below will be upheld.

As a participant in this study I hereby acknowledge that:

1. The researcher has explained to me the purpose of this study. She has also assured that all the information obtained from me as part of the study will be used for research purposes only.
2. I have given permission for her to interview me on my Ph.D. research experience.
3. I understand that my participation is voluntary and that I can withdraw from the study at any stage.
4. I understand that the university and all participants in the study will remain anonymous and information provided will be used strictly for research purposes.

Name in print: _____ Signature: _____ Date: _____

For further inquiries, you may contact the researcher or her supervisor through the contact details given below.

Supervisor XXXXXX

Benedicta Daniel-Oghenetega at 2921628@uwc.ac.za Cell phone: 084413199

Appendix 6: Interview schedule



**UNIVERSITY of the
WESTERN CAPE**

**University of the Western Cape,
Private Bag X17, Bellville 7535.
Republic of South Africa
Tel: +27 21 959 2911 / +27 21 959 2275**

Interview Schedule for African Ph.D. students

Semi-structured interview with African Ph.D. students in faculties of two universities in Western Cape Province.

Introduction

This face-to-face interview aims at understanding the strategies adopted among African Ph.D. students undertaking doctoral studies in selected universities in South Africa. The study will attempt to identify some of the difficulties that you encounter in your study. The interview questions will be semi-structured and flexible so that the questions asked will be determined according to the flow of discussion between the interviewee and the interviewer (researcher).

Themes

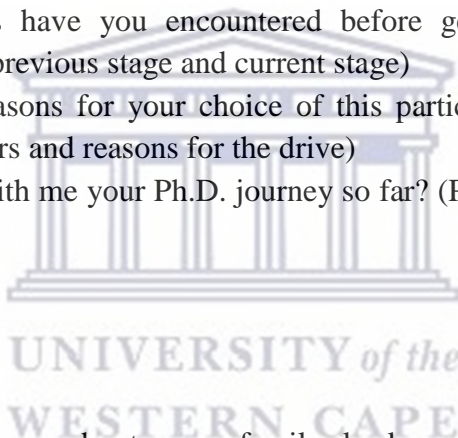
1. Personal factors

- a) Can you tell me about yourself? (Probe uniqueness and consistent character, period of development and influence)
- b) What motivated you to enrol in your doctoral study? (Probe specific factors are still influencing your work ethics and reasons for any change)
- c) How did you get to know and understand what the Ph.D. study entails?

2. Tick as appropriate

Students Profile	Responses	Student status	
Gender	Female	Full-time	
	Male	Part-time	
Age (years)	20-29	Employed	
	30-39	Unemployed	
	40-49	Sponsored	
	50-59	Self-sponsored	
	60+		
Level of study	Response	Stage of study	
1 st year		Selection of topic	
2 nd year		Construction of RQ	
3 rd year		Formulation of thesis statement	
4 th year		Proposal writing	
Other		Other	

- a) What challenges have you encountered before getting to this stage? (Probe strategies in the previous stage and current stage)
- b) What are the reasons for your choice of this particular Ph.D. program? (Probe influencing factors and reasons for the drive)
- c) Can you share with me your Ph.D. journey so far? (Probe personal challenges and strategies used)



3. Family factors

- a) Could you tell me about your family background? (Probe socio-economic background, level of education and possible motivations into academics)
- b) What role has your family played in your doctoral education?

- c) What kind of support do you get from your family, relatives and friends?
- d) Are there role models or individuals who you can regard as mentors in the family?
- e) Do you normally seek for support from your family when you are in rough moments?
- f) Can you describe some family challenges you may have experienced since you started? (Probe challenges and strategies)

4. Financial factors

- a) Are you aware of available doctoral funding or scholarship? (Probe application, terms and conditions, possible challenges and strategies)
- b) Did you start your Ph.D. studies having bursaries? (Probe other source of finance, challenges and strategies)

5. Institutional factors

1. Student preparedness:

- a. In your own opinion were you adequately prepared for the Ph.D. studies? (Probe strategies to overcome lack of preparedness, experience writing Ph.D. proposal and areas of improvement or change)

2. Supervision:

- a) Can you tell me about supervision of your Ph.D. studies? (Probe supervision relationship, challenges and strategies)
- b) If given the opportunity, would you like to change your supervisor? (Probe why)

3. Institutional cultural practices:

- a) Are there issues that border on institution cultural practice that pose a challenge to your studies? (Probe faculty and department challenges and strategies)
- b) Does the dissemination of information such as doctoral workshop, seminars and availability of funds affect your studies? Probe challenges and strategies.

4. Resources:

- a) Does the university where you study provide adequate human and material resources needed for your work? (Probe influence, effects variation and management of the challenge)
- b) What will you like to be introduced in the institution, faculty or department for doctoral studies? (Probe reasons for innovations)
- c) What other problems are you experiencing while doing your Ph.D. in this institution? (Probe: How are you dealing with them?)

Appendix 7: Ph.D. Student's Questionnaire



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel : +27 21-9592274, Fax : 27 21-9592271

E-mail : 2921628@uwc.ac.za

Instructions

Mark X in the response box to indicate your answer

SECTION A: BIOGRAPHICAL & DEMOGRAPHICAL INFORMATION

Indicate your responses to each item by marking the most block with a cross

(X)

1.

Gender			
Male		Female	

2.

Age						
Less than 25 yrs.		26-30 yrs.		31-45 yrs.		46 years and above

3

Marital status							
Single		Married		Divorce		Other	

4. Home language (Mark with an X)

Englis h	Afrikaan s	Zul u	Xhos a	Soth o	Ped i	Tswan a	Swat i	Ndebel e	Tsong a	Vend a	othe r
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5.

Nationality			
South African student		International student	

6.

Student status			
Part-time		Full-time	
Unemployed		Employed	
Funded		Self-funded	

7.

Place of Birth			
Cape Town		Outside Western Province	
Outside South Africa			

8

Place of residence					
Hostel		Cape Town		Outside South Africa	
Other					

9

Province of origin					
Western Cape		Eastern Cape		North West	
Limpopo		Other			

10.

Years lived in UWC						
Below 2 years		2-5yrs		Above 5 yrs		Other

12

Faculty of study					
Arts		EMS		CHS	
Education		Sciences			

13

Stage of Ph.D. studies			
Proposal writing		Data collection	
Analysing of data		Writing up	

Appendix 8: Personal details of participants

Codes	Age	Marital status	Nationality	Faculty	Ph.D. Enrolment year
Peter	35 yrs	Married	[REDACTED]	EMS	4 th year
James	38 yrs	Married	[REDACTED]	Arts	4 th year
Andrew	37 yrs	Married	[REDACTED]	Arts	4 th year
John	41 yrs	Married	[REDACTED]	Sc	4 th year
Jude	44 yrs	Married	[REDACTED]	Sc	3 rd year
Paul	34 yrs	Single	[REDACTED]	Sc	4 th year
Mary	32 yrs	Single	[REDACTED]	Sc	4 th year
Martha	38 yrs	Single	[REDACTED]	Sc	3 rd year
Naomi	42 yrs	Married	[REDACTED]	Education	3 rd year
Abigail	36 yrs	Single	[REDACTED]	Arts	2 nd year
David	35 yrs	Single	[REDACTED]	Sc	2 nd year
Deborah	29 yrs	Single	[REDACTED]	Sc	2 nd year
Ruth	47 yrs	Co-habit	[REDACTED]	Education	4 th year
Solomon	44 yrs	Married	[REDACTED]	CHS	2 nd year
Jacob	46 yrs	Co-habit	[REDACTED]	Arts	4 th year
Jehoram	42 yrs	Married	[REDACTED]	CHS	4 th year
Michael	29 yrs	Single	[REDACTED]	Sc	2 nd year
Reuben	38 yrs	Married	[REDACTED]	Law	2 nd year