CHAPTER 1: CONTEXTUALISING THE STUDY

1.1 INTRODUCTION

In this chapter I set out the multiple contexts of this study. These multiple contexts include the academic and environmental contexts and my personal context, from which a compelling research problem emerges. Finally, I indicate the evolutionary nature of the research questions and the scope of the study.

1.2 THE ENVIRONMENTAL CONTEXT: A SOUTH AFRICAN PERSPECTIVE

Real gross domestic product (GDP) at market prices increased by 2,6 per cent during the third quarter of 2010. The main contributors to the increase in economic activity for the third quarter of 2010 were the mining and quarrying industry (1,5 percentage points). The wholesale, retail, motor trade and accommodation industry and the agriculture, forestry and fishing industry each contributed 0,4 of a percentage point, and finance, real estate and business services and the transport, storage and communication industry each contributed 0,3 of a percentage point (Statistics South Africa, 2010:1). At first glance these financial indicators might paint a picture of growth and economic stability.

However, multiple variables are introduced on a daily basis which might reframe the picture of stability and growth to **complexity**, as the following excerpt from a credible local newspaper, the *Mail and Guardian*, shows (Smith, 2009):

> 'In the past week, scenes reminiscent of the apartheid era[1] have returned to the townships – clouds of acrid black smoke rising from burning tyres, policing turning on residents with rubber bullets, sirens wailing and – most symbolic – official buildings and vehicles being set on fire'.

[1] The Apartheid Era is typically being viewed as the period between 1940 and 1993.

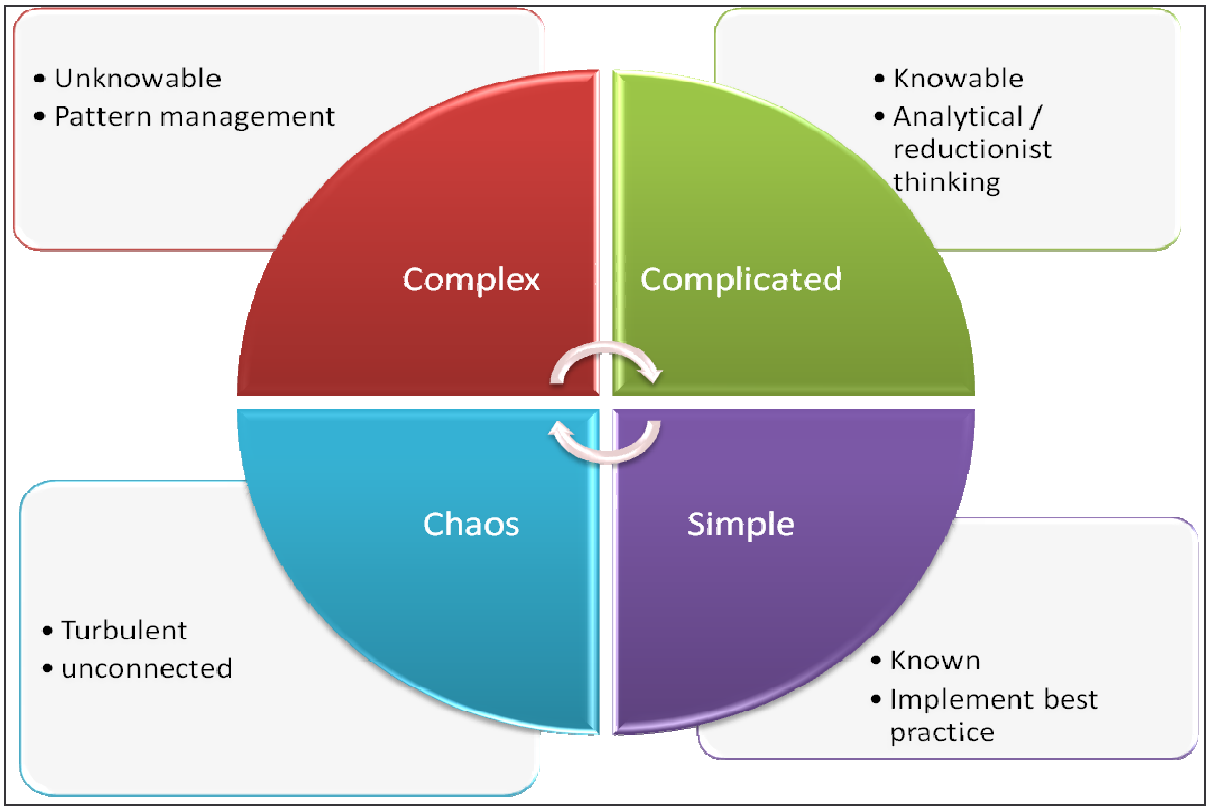
Since the African National Congress (ANC) has become the ruling party in 1994, people are less enthusiastic than before, partly because of an increase in crime over the last 15 years. Strikes in the very industries that contribute significantly to the annual GDP are prevalent. For example, strikes in the transport and chemical industries have affected gasoline supply, teachers actively participated in a nationwide strike and the construction industry has gone on strike for wage increases, while unions have the upper hand in power relations. In the midst of all this, other local variables, to name just a few, introduce even more complexity into the South African context:

- The official unemployment rate in 2010 was 23.5%.
- The total number of new HIV infections for 2010 was estimated at 410 000 out of a total population of 49,99 million. Among adults aged 15–49, an estimated 17% of the population is HIV positive, which will have a severe impact on the next generation workforce.
- Many children who have been orphaned due to HIV take on the role of caretakers for their siblings and cannot attend school. Only 67,8 per cent of matrics passed the exams in 2010 (Statistics South Africa, 2010:1).

In such changing times with diverse voices, change leadership effectiveness across all industries becomes the most pressing matter in the South African context. Literature agrees that effective change leadership is a critical part of leading an organisation successfully in a complex environment (Chaize, 2000:95; Conner, 1998:10; Deardorff & Williams, 2006;1; Denton & Vloeberghs, 2003:84; Guillory, 2007:91; Karp, 2006:3; Kilmann, 2001:76; Pellissier, 2001:34; Quigley, 2001:11; Shelton & Darling, 2001:264; Wheatley, 2006:36; Youngblood, 1997:8; Zohar, 1998:56).

Considering the complex context in which South African organisations are nested, further investigation into the relationship between contexts and change leadership is necessary. Snowden's model, 'The Four Ontologies' (Figure 1) provides a **typology of contexts** that guides which type of solution and change leadership approach will be best suited for which context.

Figure 1: The four ontologies

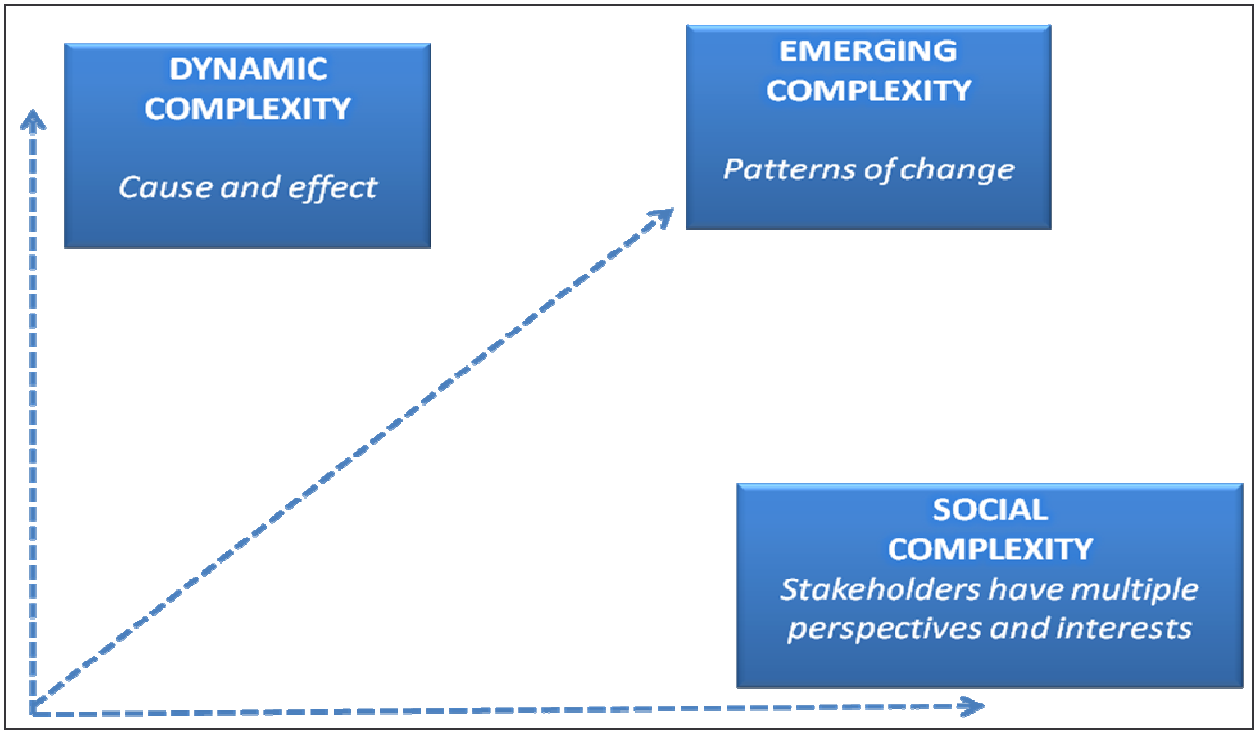


Source: Snowden & Boone, 2007:63

- In a **simple context** the relationship between cause and effect is clear and a best practice solution such as standard operating procedures would be appropriate.
- **In a complicated context** the relationship between cause and effect requires analysis and/or usage of expert 'knowing' to construct the solution.
- **In a chaotic context** there is no relationship between cause and effect at systems level due to randomness and thus the discovery of novel practices during random events would be appropriate.
- **In a complex context**, **the context which is applicable to this study**, the relationship between cause and effect can only be perceived in retrospect and therefore pattern recognition would be useful as part of the South African leaders' change leadership repertoire of skills.

Now that the South African environment has been established as a typical complex context according to Snowden's four ontologies, it is worthwhile to explore what complexity constitutes of. The implications for the South African leader are immense since they are faced by three types of complexity simultaneously.

Figure 2: Three types of complexity



Source: (Scharmer, 2009:60)

Figure 2 shows three types of complexity faced by a leader. Dynamic complexity means that there is a systematic distance between cause and effect. For example, the uncontrolled HIV epidemic, poor education system and lack of skills (multiple causes) in the South African context lead towards an intense focus on talent attraction and retention.

Emerging complexity is characterised by change where the solution to the problem is unknown, or even where the problem statement itself keeps moving and unfolding. For example, mistrust between employees, unions and managers exist due to affirmative action, adverse labour relations and the wealth and poverty gap (Denton & Vloeberghs, 2003:84).

Social complexity, which refers to the product of the co-existence of multiple perspectives and interests of stakeholders, is perhaps most visible in South Africa. For example, aggressive union backing emerged due to the complex and inconsistent implementation of the new labour legislation.

This leaves South African leaders with a daunting question. **What** will determine change leadership effectiveness and **how** do they effectively lead transformation in a complex environment? There is only one certainty: due to the existence of multiple complexities, leaders can rarely rely on past experiences and solutions (Denton & Vloeberghs, 2003:88).

1.3 ACADEMIC CONTEXT: MENTAL MODELS AND LEADERSHIP IN A COMPLEX ENVIRONMENT

In this section, I first discuss the relevancy of mental models and change leadership in a complex environment to provide a backdrop for the focus of my study.

Why are some organisations successful whilst other organisations decay in the 21st century's turbulent and unpredictable environment? In an attempt to answer this dilemma, current literature no longer focus on the question 'why change?', but rather 'how to change' (Chaize, 2000:95; Conner, 1998:10; Deardorff & Williams, 2006;1; Denton & Vloeberghs, 2003:84; Guillory, 2007:91; Karp, 2006:3; Kilmann, 2001:76; Pellissier, 2001:34; Shelton & Darling, 2001:264; Wheatley, 2006:36; Zohar, 1998:56). Popular interventions towards transforming organisations have been restructuring, layering, downsizing, rightsizing, leadership development, team building, market positioning, industry analysis, total quality management and business process re-engineering (Pellissier, 2001:193). However, these interventions have been used as **change events within the existing paradigm** and not a **change of the organisational paradigm** itself (Kilmann, 2001:75). Kilmann (2001:78) argues that understanding and navigating a complex environment will be not only difficult but also foreign to leaders who have been contaminated with the traditional approaches to leadership.

Building upon this argument, a link has been established between successful organisational change and the self-transformational ability of a leader (Deardorff & Williams, 2006;1; Denton & Vloeberghs, 2003:84; Guillory, 2007:91; Karp, 2006:3; Serfontein, 2006:36; Shelton & Darling, 2001:264). Richie-Dunham and Puente (2008:509) assert that the process of sense-making and navigating through multiple variables in a complex context is influenced by a leader's mental model. Consequently, Chaize (2000:86), Kilmann (2001:70) and Scharmer (2009:6) convincingly argue that the **mental models of a leader are the source which will determine change leadership effectiveness** in a complex context.

Unfortunately, leadership practices, in general, are a reflection of a mindset that flourishes on predictability, reductionism and stability (Shelton & Darling, 2003:353). In addition, current South African leadership positions have been acquired through the successful mastery of traditional management techniques and approaches. These are inappropriate for a complex context and therefore never necessitate the leader to investigate the current content of their own mental model or, if awareness exists, leaders are not equipped to shift their mental model to be appropriate for a complex environment (Guillory, 2007:91; Shelton & Darling, 2001:265; Smith-Jentsch, Campbell, Milanovich & Reynolds, 2001:181; Snowden & Boone, 2007:60). Therefore, literature appeals to leaders to cultivate mental models that are aligned to a complex environment. Such cultivation will imply a continuous shift and reframing of the mental model content through a process of continuous learning (Guillory, 2007:91; Pascarella, 1998:56; Quigley, 2001:11, Youngblood, 1997:8).

A quantum organisation is co-created by leaders who demonstrate the capacity to continuously learn and adapt their mental models as new patterns emerge (Shelton, McKenna & Darling, 2002:378) and where rapid and continuous change happens (Druhl, Langstaff & Monson, 2001:379; Guillory, 2007:91; Shelton & Darling, 2003:353). The change in mental models will enable leaders to **see** the interconnectedness of the business environment, consciously **think** about their thinking and **behave** with the intention that facilitates constant organisational transformation (Kilmann, 2001:23).

1.4 PERSONAL CONTEXT: THE STORY OF THE WISE SIX-YEAR OLD

In this section I attempt to describe the aspects of my background that are relevant to the study and how my interest and passion in the topic emerged from a young age and was cultivated through career choices.

My story starts as a six-year old who lived in a world of possibilities, colours and music. However, a brutal and harsh 'truth' was enforced by my first-grade teacher when she insisted that 1+1=2, whereas I thought that 1+1 can be 2, 4 or 100. Surely, the sum of 1+1 can take many forms, depending on what you believe to be possible? I had to unlearn my ideas about possibility and relearn that there is only 'one truth', which is 1+1=2. My story continues as a classically trained pianist who searched for the ultimate perfection and mastery of the great classical works through rigorous training. I resonated in particular with the French Impressionistic works – paradoxical and complex compositions. I believed, as I was taught at school, that there is only 'one way' to master these works: technical mastery and a scientific understanding of music. Until one day, when my teacher stood up and started to dance on the music, discarding his conventional teaching methods on phrasing. This allowed me to experience the message and soul of the piece in the moment, as well as to listen to and observe myself whilst playing. Being in the moment allowed me to self-correct with grace as insights emerged. I had to unlearn my belief that there is only 'one way' to mastery and relearn that mastery comes with sensing, knowing, seeing, feeling and experiencing the complexity of music in the present moment.

Since 2000 I have worked in the field of leadership development as a registered psychologist with the Health Professions Council of South Africa (HPCSA). Part of my function is to conceptualise, design, write and facilitate leadership development programmes. During this period I became particularly interested in what makes some individuals more effective in change leadership than others. From my tacit knowledge at the time, the more effective individual connected to a purpose and often mindfully ask more questions than offer answers. I was also interested in the pockets of excellence and success stories of these individuals and engaged in true dialogue, not only conversation.

This gave me an opportunity not only to understand the context but also to participate actively in re-constructing meaning – hence the choice of a constructivist paradigm within the qualitative research methodology.

The complexity of the context in which we live and make meaning in a holistic manner requires a mindset of possibility and multiple truths. The wise six-year old was right: 1+1=multiple truths and this is the premise of my study….

1.5 THE RESEARCH PROBLEM

Now that the link between change leadership effectiveness in a complex environment and mental models has been established, the research problem starts to emerge.

Firstly, literature fails to agree on a common definition for mental models and the quantum organisation and definitions are varied and vague (Aronson, 1997:782; Guillory, 2007:91; Johnson, 1995:258; Rowe & Cooke, 1995:245; Shelton & Darling, 2001:265; Smith-Jentsch *et al*., 2001:181; Theron & Roodt, 2000:15; Quigley, 2001:11). As existing definitions fail to reflect the richness and complexity of the mental model construct, literature suggests that future research must explore the form and function of mental models in the context of leadership (Shelton & Darling, 2003:359; Theron & Roodt, 2000:18).

Secondly, existing research mostly focus on understanding mental models within a computer-processed context from a positivist paradigm. This necessitates the study of mental models within the complex South African environment, as the context is significantly different.

Thirdly, conceptual frameworks on mental models only address **what** the process of shifting and learning in the mental model consists of, and not **how** the actual shift and learning-unlearning-relearning occur within the mental model (Pellissier, 2001:85; Deardorff & Williams, 2006:12).

1.6 RESEARCH QUESTIONS: AN EVOLUTIONARY PROCESS

The primary objective of this study is ***the building of a conceptual framework on the form and function of mental models of leaders in the South African quantum organisation***. The following research questions were used as a framework, while other research questions emerged during the co-constructed conversations with research participants:

- What is a quantum organisation in the South African context?
- What is a leader regarded as in the quantum organisation?
- How are mental models influencing change leadership effectiveness in the quantum organisation?
- What is the form and function of a mental model?
- What does the learning process constitute of?

Due to the **iterative and reciprocal nature** of qualitative research, I have increasingly gained an understanding of and insight into the phenomena being studied. Consequently, my research questions became more specific and appropriate during the data collection phase. Schurink (2003:3) postulates that research questions are formulated not with the intention to operationalise variables but to investigate the variables in their context and complexity.

1.7 SCOPE OF THE STUDY

This research focus on the mental model of the individual leader in the South African quantum organisation (as illustrated in Figure 3) and falls within the field of organisational behaviour. Organisational Behaviour from a South African context can be defined as 'a field of study that investigates the impact that individuals, groups, and structure have on behaviour within organisations for the purpose of applying such knowledge towards improving an organisation's effectiveness' (Robbins, Odendaal & Roodt, 2007:7).

The units of analysis in this study are mental models and not shared mental models, whereas the sampling units are leaders in a South African organisation. The **individual leaders** and **not the team** are the units of analysis. According to Conner (1998:14), someone who has the responsibility of managing a team and has transformational influence in an organisation can be regarded as a leader. This study does not test a hypothesis on the relationship between change effective leadership and mental models, as this relationship has already been established by literature (Chaize, 2000:95; Conner, 1998:10; Deardorff & Williams, 2006,1; Denton & Vloeberghs, 2003:84; Guillory, 2007:91; Karp, 2006:3; Kilmann, 2001:76; Pellissier, 2001:34; Quigley, 2001:11; Shelton & Darling, 2001:264; Wheatley, 2006:36; Youngblood, 1997:8; Zohar, 1998:56).

Figure 3: Scope of the research

The scoping of the study was an ongoing process as this is a topic that is part of a network of other related constructs, which proved to be perhaps one the biggest challenges and frustrations of this study. I had an unrealistic desire to see everything at the same time and to study all phenomena linked to complexity and leadership simultaneously. I fear that my brain is too small or not (yet) re-wired to process the phenomena in a gestalt-like manner and turn my insights into a language that communicates effectively. I fell into a trap like a fly would fall trap to a spider's web!

1.7.1 Assumptions

This research is based on the following assumptions:

- Although industry-specific knowledge will be different; the form and function of the individual leader's mental models as it relates to change and transformation in a complex context, will be similar regardless of the industry.
- A postmodernist philosophy and constructivist approach assume that truth is a particular belief system held in a particular context. Researching this constructed reality implies that knowledge and 'truths' are jointly created by participant and researcher, not discovered. Therefore, it would be appropriate to introduce the set of assumptions held by me. In Table 1, I explicated my set of assumptions and its impact on the research experience and results.

Table 1: Researcher assumptions

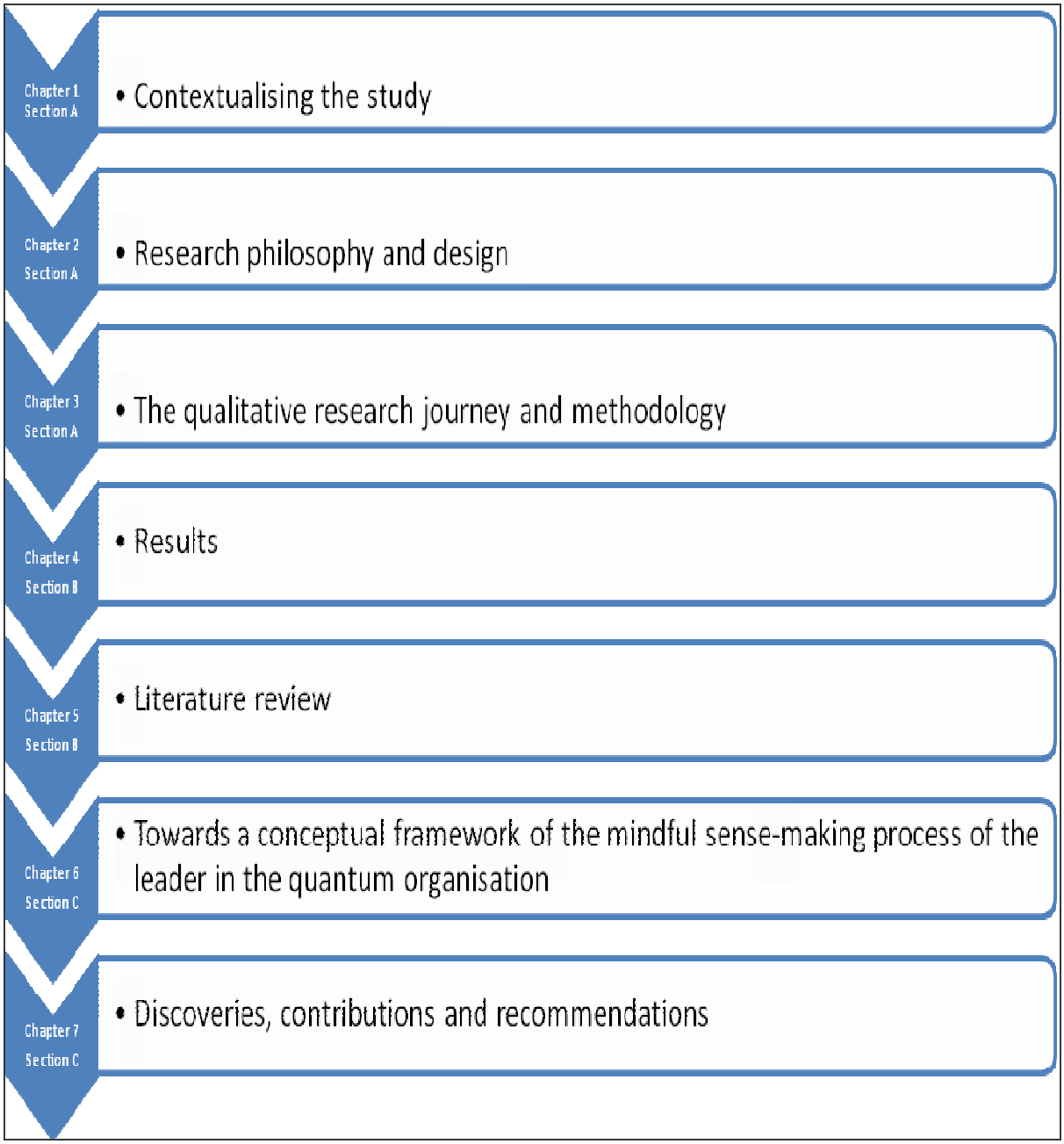
Themes to be explored during explication of assumptions	My assumptions	Perceived impact on the research
My philosophical/theoretical origins	Socially constructionist orientation	Positive impact on the chosen theoretical orientation of complexity theory, qualitative methodology and semi-structured interview approach
Nature of human beings	Individuals create their own reality and meaning and constantly engage in shifting that meaning	Impacted on the chosen research design, which allows for an iterative and circular approach
My explanation of what is a 'truth'	Individuals create their own reality and meaning and constantly engage in shifting that meaning. Multiple 'truths' can co-exist, often in discomfort.	Impacted on the chosen research design, which allows for an iterative and circular approach as multiple and contradicting 'truths' are unearthed.
During data collection and data analysis, whose voices are privileged?	Reality are co-constructed, therefore it is not a matter of a position of power or privilege, but a position of equality.	Used excerpts from interview transcripts of both researcher and participants to demonstrate equality in voice.
Where do social/political values enter into the study?	Values are an integral part of participants and their identities. No values are presumed to be superior to others.	Therefore, I am comfortable with contradicting value sets between participants and researcher – it is part of their reality and is neither right nor wrong.
Openly acknowledge and reflect on the influence of prior training and experience	Influence of prior training and experience can impact on how to conduct research	I am a registered psychologist within the fields of psychodynamics and cognitive emotive behavioural approaches (two opposing schools of thought!) and currently am practising (and learning) within the constructivist paradigm in leadership development and coaching.

Sources: Adapted from Fossey, Harvey, McDermott & Davidson (2002:719); McGhee, Marland & Atkinson (2007:335)

1.8 THE STORYLINE

In this section, I provide a brief outline of the study, as illustrated in Figure 4.

Figure 4: The dissertation structure



Section A deals with the study and its methodology and includes Chapters 1, 2 and 0. In Chapter 1, I have provided information on the environmental, academic and personal contexts, as well as the research problem, research questions and the scope of the study.

In Chapter 2, I provide a literature overview of my postmodernist research philosophy and constructivist research paradigm. I also introduce discussions on rigour and my own research journey.

In Chapter 3, I provide a literature study of the constructivist grounded theory which informs the research design and methodology. I provide a chronological account, from the researcher's perspective, of how I conducted the research and give reasons for decisions taken during the research. I make specific reference to the data collection and analysis, and the way in which I dealt with setbacks. I treat reflexivity in an integrated manner and delineate my own assumptions, expectations and role as researcher and the impact thereof on the co-constructed findings. As in Chapter 2, I pay specific attention to research rigour and the integrity and legitimacy of the research.

Section B consists of Chapters 4 and 5. In Chapter 4 I cite examples of responses gained from interviews *verbatim* to highlight the relationship between themes which emerged during the coding process. Chapter 5 deals specifically with the validation of the results through an extensive literature review.

Section C consists of Chapters 6 and 7. I present and discuss the conceptual framework of mental models of leaders in the South African quantum organisation (Chapter 7) and its key contributions, implications, limitations and recommendations for future research (Chapter 8).

CHAPTER 2: RESEARCH PHILOSOPHY AND DESIGN

2.1 INTRODUCTION

In this chapter I provide a literature overview of my postmodernist research philosophy and constructivist research paradigm. Furthermore, I introduce discussions on rigour and my own research journey, which led me to a conclusion that highlights the appropriateness of the qualitative research methodology in the studying of mental models of leaders in a complex environment.

2.2 POSTMODERNISM AND CONSTRUCTIVISM: MY READING GLASSES

A research philosophy can be defined as the worldview that guides the investigation, research methodology, assumptions, practical considerations and the relationship between knowledge and the process by which it is developed (Saunders, Lewis & Thornhill, 2007:100).

Finlay (1998:453) argues that when studying constructs characterised by ambivalence, unpredictability and contradictions, and meanings attached to definitions are socially constructed and interpreted in multiple ways, a postmodernist rather than a positive approach is required. Postmodernism is a worldview which postulates that individuals are immersed and flooded with multiple voices and meanings that create a cacophony or symphony of chaos. Thus, it is a study in multiple and often contradictory realities. It is argued that postmodernism offers a distinctly different approach to the study of leadership and representation of findings as it allows for context and complexity. This implies that my role as researcher was also to search for and capture the inconsistencies, contradictions and multiple representations of what constitutes a mental model in the quantum organisation (Kilduff & Mehra, 1997:453; Tierney, 1996:374). Postmodernism, therefore, appears to be an appropriate research philosophy for this study.

2.2.1 Epistemology and ontology

The research process is based on paradigms that involve distinct assumptions on the nature of reality (ontology) and how knowledge is acquired to know what the reality is (epistemology) (Shah & Corley, 2006:1822). Therefore, epistemology can be defined as the study of what knowledge is and is concerned with what is being regarded as acceptable knowledge (Saunders *et al.,* 2007:103).

Ontology, on the other hand, is concerned with the format and nature of reality and what can be known about that particular reality. The chosen ontological orientation was that there are multiple, constructed realities which are subjectively constructed and influenced by the context of the situation.

Within the postmodernist philosophy, I adopted a constructivist paradigm. Although Schurink (2003:3) draws a distinction between constructivism and interpretivism, Guba and Lincoln (1994:24) acknowledge that the two paradigms are similar and therefore the term 'constructivist-interpretive paradigm' is used. Table 2 reflects a continuum of epistemological and ontological orientation, which positions the constructivist paradigm (shaded column) in contrast with other paradigms that are not used in this study, such as the positivist paradigm.

Table 2: Epistemological and ontological continuum

Ontological assumptions	Reality as projection of human perception	**Reality as social construction**	Reality as realm of social discourse	Reality as contextual information	Reality as concrete process	Reality as a concrete structure
Epistemological orientation	Obtain phenomenological insight and understanding	**Understand how reality is socially constructed**	Understand patterns of symbolic discourse	To map contexts	To study systems, process and change	To construct a positivist science

Sources: Gioia & Pitre (1990:591); Johnson & Duberley (2003:1282); Klenke (2008:21); van der Mescht (2002:45)

A constructivist paradigm implies that reality cannot be understood by objectively interpreting the meanings, but rather by actively co-constructing meaning and reality through interaction between the researcher and participant. The very act of interpretation of the studied phenomena is in itself a construction where truth or reality becomes a socio-linguistic product and an independent reality does not exist.

Therefore, **the researcher is an instrument similar** to, for example, a scale that is used as an instrument in quantitative studies (Schurink, 2003:3). This research is not free from societal influences and values and I am incapable of neutralising subjectivity, since researcher and participants are both part of the phenomena under investigation. Contrary to a single authoritative monologue by an author, the postmodernist approach implies a number of voices which appear, disappear, resurface, agree, disagree and disrupt each other, reflecting the multiple meanings (Johnson & Duberley, 2003:1288). Therefore the relationship and interaction between researcher and participant are of critical importance. In a relationship of equality, the researcher and participant co-construct findings during dialogue (Ponterotto, 2005:129).

As stated in Chapter 1, scoping and explicating assumptions were an ongoing process (section 1.7.1). In addition, there is a primary set of assumptions about constructivism which was adopted throughout:

- 'Truth' is a matter of consensus among informed and sophisticated constructors and does not reflect the objective reality, as there is no such a phenomenon as an 'objective reality'.
- 'Facts' presented as findings in this dissertation have meaning within a value framework and therefore cannot be 'objective' assessments
- The phenomena of mental models and the quantum organisation can only be understood within the context in which they were studied (Klenke, 2008:21).

2.2.2 Ontological and epistemological rigour

Ontological and epistemological rigour refers to the choice of qualitative methodology that supports the ontological and epistemological underpinnings. It is assumed that reality is **socially constructed, contested, fluid and value-bound** (Van der Mescht, 2002: 46). 'Socially constructed' refers to how participants make their own reality in relationship with others and their environments. Reality is 'contested', because participants might have different understandings and meanings attached to the construct; 'fluid', because meanings might shift and be difficult to define as an essence (which is particularly relevant to multifaceted constructs such as the mental models in the quantum organisation); and 'value-bound' because both researcher and participant bring espoused values to the conversation and sense-making.

Lincoln and Guba (1985:39-40) elegantly put the following argument forward:

> ...it would virtually be impossible to devise a prior nonhuman instrument with sufficient adaptability to encompass and adjust to the variety of reality that will be encountered; because of the understanding that all instruments interact with respondents and objects but that only the human instrument is capable of grasping and evaluating the meaning of the differential interaction; because the intrusion of instruments intervenes in the mutual shaping of other elements and that shaping can be appreciated and evaluated only by a human; and because all instruments are value-based and interact with local values but only the human is in a position to identify and take into account (to some extent) those result biases.

This implies that the subjective engagement of the researcher is one of the greatest differentiators and strengths of qualitative research if the researcher wanted to stay true to the ontological and epistemological orientation of this study. Whereas some authors pose subjectivity as a 'methodological issue', as oppose to the postmodernist approach which implies that there is 'no way of neutralising subjectivity in qualitative research' (Conneeley, 2002:185).

2.2.3 Paradigm orientation and theory building

Organisational study, similar to other fields of inquiry, is paradigmatically anchored. A paradigm can be defined as a filter used to make meaning or a way of thinking that reflects deep-seated assumptions and beliefs (Gioia & Pitre, 1990:585). Because paradigms differ fundamentally, the approach towards developing a conceptual framework or theory will be significantly different, as demonstrated in Table 3. The constructivist paradigm (shaded column) is juxtaposed against other paradigms that are not used in this study, such as the radical structuralist and functionalist paradigms.

Table 3: Paradigm differences and theory building

Descriptors	Constructivist-interpretive Paradigm	Radical Humanist Paradigm	Radical Structuralist Paradigm	Functionalist Paradigm
Goals	To describe and explain in order to understand	To describe and critique in order to change	To identify sources of domination and persuade in order to guide	To search for regularities and test in order to predict and control
Theoretical concerns	Social construction of reality, reification process, interpretation	Social construction of reality, distortion interests served	Domination, alienation, macro-forces	Relationships, causation, generalisation
Theory-building approaches	Discovery through code-analysis	Disclosure through critical analysis	Liberation through structural analysis	Refinement through causal analysis

Source: (Lynham, 2002:226)

In this study, the goal of theory building in the constructivist-interpretive framework is to describe, interpret and co-construct meanings to make sense of, understand and interpret the form and function of mental models of a leader in a complex environment such as South Africa.

2.2.4 Postmodernism and rhetorical structure: my voice

The rhetorical structure refers to the language used to present the data collection and analysis procedures and findings (Ponterotto, 2005:132). It is stated that most authors of qualitative studies on leadership have employed one of two narrative stances: first or second person. The first narrative style highlights the author's involvement in the co-construction of meaning and text. The second and most pervasive narrative approach, passive voice, implies that data have an omniscient narrator who objectively presents the data (Tierney, 1996:377). The postmodernist orientation of this study implies that data are presented in the first person to weave my understanding into the narrative as a researcher-participant (Mills, Bonner & Francis, 2006:11).

2.2.5 Paradigms of enquiry

Organisational behaviour, as a field of study, requires researchers to choose a research philosophy that fits the nature and state of knowledge of the phenomenon studied, and also considers the implications on the quality of the research. Evered and Louis (1981:386) postulate that knowledge and understanding of an organisational setting can be obtained through two modes of enquiry (Table 4):

- Studying from the outside calls for detachment on the part of the researcher who conduct data analysis with pre-determined analytical categories.
- Becoming part of the organisation and studying the phenomenon from the inside and 'being-in-the-world' of the participant, which can only be understood and interpreted by another 'being-in-the-world', the researcher. Data analytical categories emerge and evolve during and after research (Evered & Louis, 1981: 385; Lowes & Prowse, 2001:474).

Table 4: Differences between the two different paradigms of enquiry

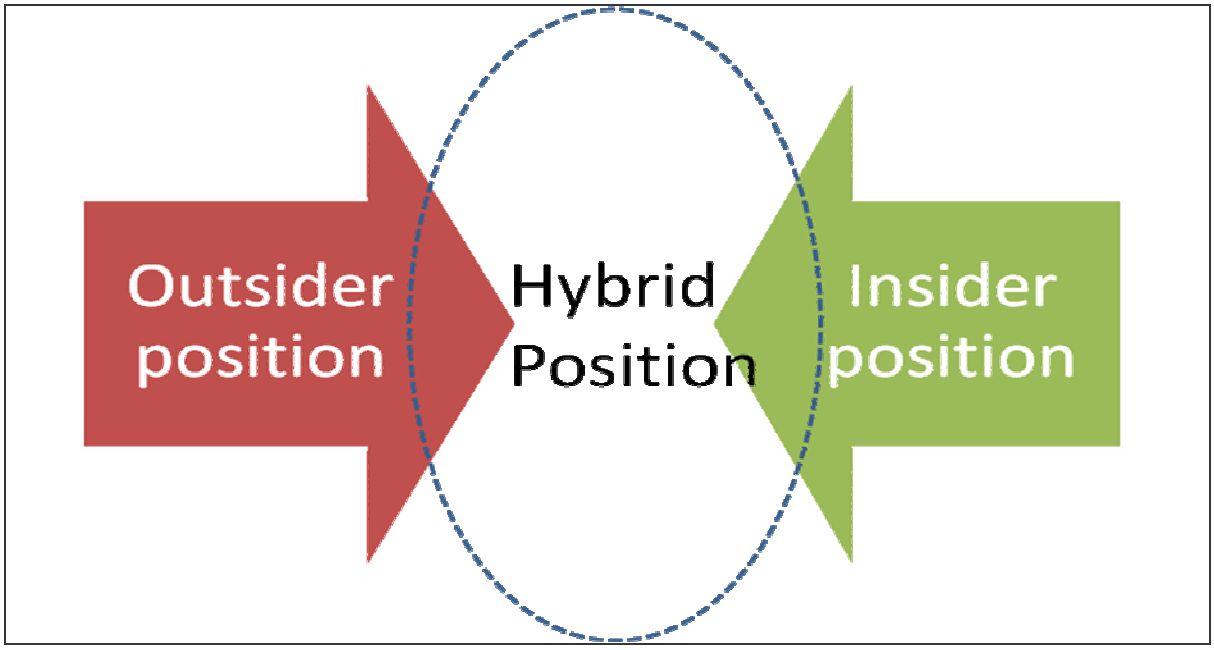
From the outside in	From the inside out
Detachment and neutrality Knower (researcher) and known (participant) are independent	Attached, involved and immersed Knower (researcher-participant and participant) are interactive and inseparable
Measurement and logic	Experiential
Onlooker (participant) and observer (researcher)	Participant interviewee and participant researcher
A priori	Interactively emergent
Universality and generalisability	Situational relevant
Factual and context free Reality is single, tangible and fragmentable	Interpreted, contextually embedded Realities are multiple, constructed and holistic
Inquiry is value-free	Inquiry is value-bound

Sources: Evered & Louis (1981:389); Giorgi (1992:121); Jootun, McGhee & Marland (2009:44); Lowes & Prowse (2001:474).

2.2.6 Researchscape: Location of researcher in paradigm of enquiry

Gummesson (2006:174) refers to the environment in which the researcher works as the researchscape – it includes the combined constellation and complexity of researcher lens, participant meaning and methodology in which meaning is co-constructed. From Figure 5 it can be deduced that inquiry from the outside has critical epistemological assumptions. These assumptions essentially are that the truth and reality consist of facts which can be observed in a structured and methodological manner. In contrast, inquiry from inside, carries the epistemological assumption that the researcher acquires knowledge about the reality by being part of the experience of the reality. As an alternative position on the researchscape, Jootun *et al*. (2009:42) postulate that the researcher must take a hybrid position, neither outside nor inside: a researcher who undertakes research in the practice area of other practitioners and is familiar with that research area.

Figure 5: The hybrid position



Source: Adapted from Jootun *et al.* (2009:44)

For this particular study my location as the **participant researcher** is inquiry from the inside out. This epistemological assumption implies that knowledge gained from interviews can only be co-constructed together with participants. Both researcher and participated experiences and voices are heard and reflected in the data and therefore I cannot marry myself with a 'hybrid' position.

Due to my vocation as leadership development researcher and practitioner, I have often taken on the role, consciously and unconsciously, of the 'insider'. This insider status had a significant impact. We (research participant and participant researcher) shared similar backgrounds and leadership jargon. For example, I could identify with the participants when they spoke of the 'double-bind' and paradoxical situations in which they found themselves, typical to leading in a complex environment. However, I had to guard against assuming that we shared the same meaning and saw the world similar in all instances.

An example stands out: I started with an assumption that as practitioners we need to understand and 'know' first before we can respond appropriately.

It came as a big surprise to me to find out that my participants' experience has been quite the opposite: not understanding and 'not knowing' is **the** source from which insight and appropriate response will emerge. Had I not reflected on and recorded my assumptions, I might have missed this insight. At times I found that I have unknowingly assumed the meaning of the participant and 'known' their experience. However, listening with curiosity and 'not knowing' the meaning of their experience allowed me as researcher to fully engage in a co-constructed conversation. My subsequent reflection and field notes helped me pick up the significance of 'not knowing' and guard against making assumptions from the 'insider' location on the researchscape. This has taught me to ask consciousness-raising questions to provoke thinking, not only about the location but also the power that may exist in the relationship (Mills, Bonner & Francis, 2006:10).

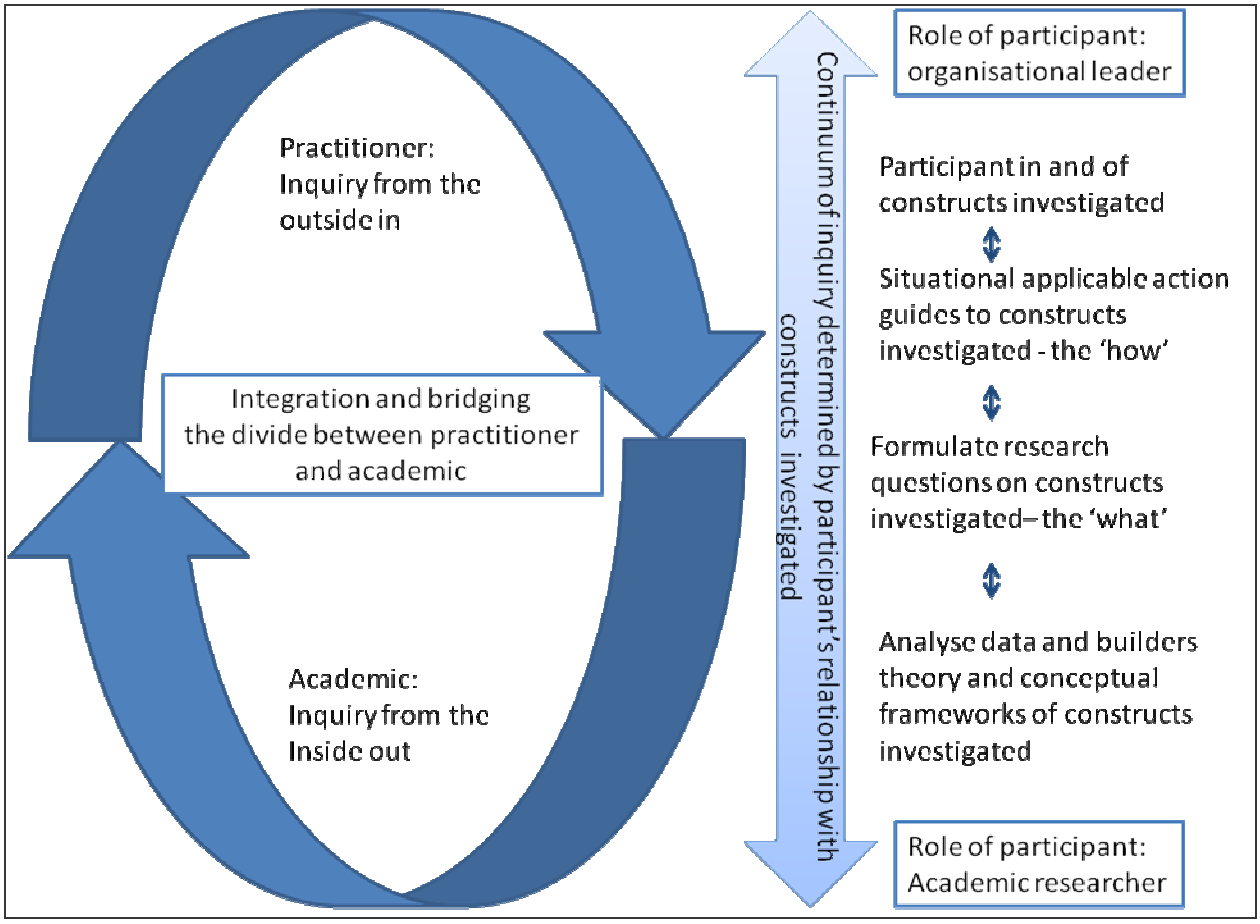
2.2.7 Researchscape: Location of participants in paradigm of enquiry

In this study I took the liberty to re-interpret 'inquiry from the inside and outside' so that it does not only offer the location of the researcher but also identify the position of the participants in relation to the constructs investigated.

As illustrated in Figure 6, 'enquiry from inside out' can be re-interpreted as participants who are dealing with the construct in a deductive manner. They develop a hypothesis or a framework and apply and test it on the 'outside' world. They are therefore more concerned with the formulation of research questions that will answer the 'what' of constructs, which I found to be prevalent amongst the academics.

In contrast, 'enquiry from outside in' can be interpreted as participants who experience the constructs intimately in practice, mostly in an inductive manner, which I found to be prevalent amongst practitioners/leaders. They see and experience the constructs, recognise patterns in practice and formulate hypotheses, and are therefore more concerned with the situational application of constructs. I acknowledge, however, that academics can experience enquiry from inside in their own leadership space, and vice versa.

Figure 6: A re-interpretation of paradigm of enquiry: location of participants



Source: Adapted from Evered & Louis (1981:385-395)

The diverse field of representation, also called the 'politics of location' (Koch & Harrington, 1998:888), acknowledges that the interpretation and creation of meaning of constructs investigated exist in a complex matrix or continuum of alternative meanings and representations. Politics of location can be demonstrated as follows: facts are treated as social constructions and the scenic method is used and shown rather than told, while multiple points are highlighted on the same construct.

Certain participants are academics whilst others stand exclusively in the practice. During data analysis it became apparent that practitioners' mental models of the subject were viewed from the inside out, whilst academics' mental models were viewed from the outside in.

2.3 QUALITATIVE RESEARCH

The research philosophy, as well as the epistemological and ontological orientation, has been established. The qualitative research method is discussed within the context of the postmodernist research philosophy.

There are a number of significant differences between qualitative and quantitative research methods as highlighted in Table 5. Schurink (2003:3) defines qualitative research as 'grounded in a philosophical position which is broadly interpretivist in the sense that it is concerned with how the social world is interpreted, understood, experienced or produced.'

Table 5: Differences between quantitative and qualitative research

Quantitative	Qualitative
Based on meanings derived from numbers	Meanings of constructs expressed through the use of non-numerical data, such as words
Data collection leads to numerical data	Data collection results in non-standardised data, such as classification into categories
Data analysis through statistical analysis and diagrams, questionnaire surveys, experiments	Data analysis conducted through the use of conceptualisation of constructs, and information gathered through participant observation, interviewing, life history and grounded theory analysis

Sources: Parry (1998:88); Saunders *et al.* (2007:472)

A benefit of qualitative research is that it allows the discovery of new variables and the relationships between variables. Unfortunately, the impression has been created over time that qualitative research employs methods that are unsystematic and unscientific. To the contrary, literature on qualitative research argues that it does use formal and systematic methods for data collection and analysis (Leedy & Ormrod, 2005:133; Saunders *et al.*, 2007:470; Shah & Corley, 2006:1824).

2.3.1 Leadership and qualitative research: complex context and the individual

Qualitative research captures three dimensions of leadership phenomena – multiple levels, dynamism and social construction (Conger, 1998:111). Literature highlights that qualitative studies in the leadership arena, although growing, are underutilised as they have specific advantages over quantitative methods (Bryman, Stephens & à Campo, 1996:353; Bryman, 2004:729; Conger; 1998:109; Schurink, 2003:3; Waldman, Lituchy, Gopalakrishnan, Laframboise, Galperin & Kaltsounakis, 1998:178).

It is suggested that a qualitative approach:

- Allows for the exploration of complex and sometimes even contradictory information that exists (Parry, 1998:85). Gummesson (2006:170) argues that complex phenomena are not reduced but rather condensed to make each construct and conceptual framework progressively denser with knowledge – which is primarily the objective of qualitative research. The qualitative approach also implies that the researcher will not try to quantify observations, but to recognise rather that the constructs (mental models and quantum organisation) are multidimensional, complex and layered.
- Enables the researcher to investigate and represent mental models linguistically. Carley and Palmquist (1992:602) argue that mental models are internal representations and that therefore language is the key to understanding mental models. Their observations underscore the notion that mental models can be investigated and represented linguistically through co-constructed interviews.

Choosing a qualitative research design was therefore not a default choice but a deliberate and informed choice. Qualitative research is a different way of answering different type of research questions with a different set of assumptions and a different worldview of knowledge. As such, it proved to be best suited to answer the research questions of this study.

2.4 RESEARCH DESIGN: CONSTRUCTIVIST-GROUNDED THEORY

A research design is a general strategy, approach or framework for solving a research problem, which includes the structure for the procedures to be followed regarding data collection, analysis and interpretation (Mouton, 2001:55).

Glaser and Strauss in Pandit (1996:2) suggest a research design for grounded theory that consists of five analytic phases: research design, data collection, data ordering, as well as data analysis (open, axial and selective coding), and only thereafter a literature review. In response to this approach, Charmaz (2000:2) postulates that grounded theory methods should also include systematic, yet flexible guidelines to construct theories 'grounded' in the data themselves.

According to Glaser and Strauss (2009), defining components of grounded theory methods are

- simultaneous involvement in data collection and analysis
- the use of the constant comparison technique
- sampling that is aimed towards theory construction and not population representation
- the conducting of a literature review after an independent analysis
- the constructing of analytic codes, as opposed to preconceived logically deduced hypotheses.

Such an approach is **not compatible with the constructivist paradigm** and more suited to a modernist philosophy grounded in a post-positivist paradigm (Charmaz, 2000:67; Gioia & Pitre, 1990:584). For example, a *tabula rasa* approach is contentious, as grounded theory purists urge researchers to remove their 'intellectual baggage' and to 'wrestle with preconceptions' (Parry, 1998:93). Such an approach, as described by Glaser and Strauss, is in contradiction with the postmodernist philosophy and constructivist approach of this study where my 'intellectual baggage' is an integral part of the process of co-constructing meaning.

Another example is linked to the role of a literature review in grounded theory. An initial high-level literature review was conducted by me with the dual purpose of getting my research proposal approved and acquiring funding. It is suggested that knowledge of literature may make it difficult for a researcher to approach the study without preconceptions and be in a passionate participant role according to constructivist assumptions. Furthermore, knowledge of literature may distract perceptions to make accurate or value-free decisions, which creates the illusion of the existence of investigating an objective 'reality' (Lowes & Prowse, 2001:471).

However, it is acknowledged that many researchers have adopted and adapted grounded theory methodology to fit in with a variety of ontological and epistemological positions, such as postmodernism and constructivism. It is therefore my epistemological position which determines the form of the grounded theory. **A constructivist approach to grounded theory** reshapes the interactive relationship between researcher and participants and, in doing so, brings the centrality of the researcher as co-constructer of meaning to the forefront (Charmaz, 2000:66; Mills *et al.*, 2006:9).

Table 6 describes the research design, including the data collection and analysis phase. There is an **interactive and iterative interplay** between data collection and analysis and conceptualisation/theorising because of the constant comparative method of analysis (Parry 1998:89). For example, themes will be constantly developed in subsequent interviews as the themes emerge (Jootun *et al.*, 2009:43; McGhee, Marland & Atkinson, 2007:44).

Table 6: Research design

Research design phase	Activity	Rationale
Prepare to enter the field	Selecting a topic Initial literature review	Literature review to build rationale for study What are the gaps? What are the research questions?
Data collection	Identification of participants Enter the field	Purposive sampling
	Interview participants	Co-constructed conversations
Data analysis	Coding	Identify codes and categories Investigate, describe and interpret relationship between codes and between codes and a category
	Formulate draft conceptual framework	Identify relationships between categories Identify the emerging themes in relation to research questions
	Compare draft conceptual framework with a second in-depth literature review	Identify what was already known Compare with conflicting and similar frameworks in existing body of knowledge
Development of conceptual framework	Writing up a conceptual framework on the form and function of mental models of leaders in the South African quantum organisation	Show how it all fits together Describe constructs (quantum organisations, leader and mental model) in context of complex environment

Sources: Carroll & Swatman (2000:238); Eisenhardt (1989:533); Gioia & Pitre (1990:593)

The benefit of this interactive nature of data collection and analysis is that important relationships can be recognised already during data collection. This enables the researcher to reconceptualise and adjust future data collection.

2.5 REFLEXIVITY IN QUALITATIVE RESEARCH

An important element in the constructivist approach to grounded theory and an integral part of the research philosophy and design is the practice of reflexivity.

Reflexivity is defined as the ability to continuously notice and evaluate, to be consciously aware and to adopt a systematic analytical approach to the process. It specifically refers to 'disciplined self-reflection', also known as personal reflexivity, and method of research, also known as methodological reflexivity (Baxter & Eyles, 1997:505; Carley & Palmquist, 1992:602; Finlay, 1998:453; Johnson & Duberley, 2003:1280; Jootun *et al*., 2009:42; Macbeth, 2001:35; McGhee *et al.,* 2007:43; Malterud, 2001:484; Tierney, 1996:380).

Reflexivity is a valuable tool to:

- Examine and describe the impact of perspective, implicit biases and preconceptions, which is part of the co-constructed experience
- Provide rich multilayered insight through the practice of introspection on personal response and personal dynamics of the research relationship
- Demonstrate rigour by consciously and deliberately linking the social process of engaging with participants with the technical processes of data collection, analysis and decision taking during this route (Macbeth, 2001:38).

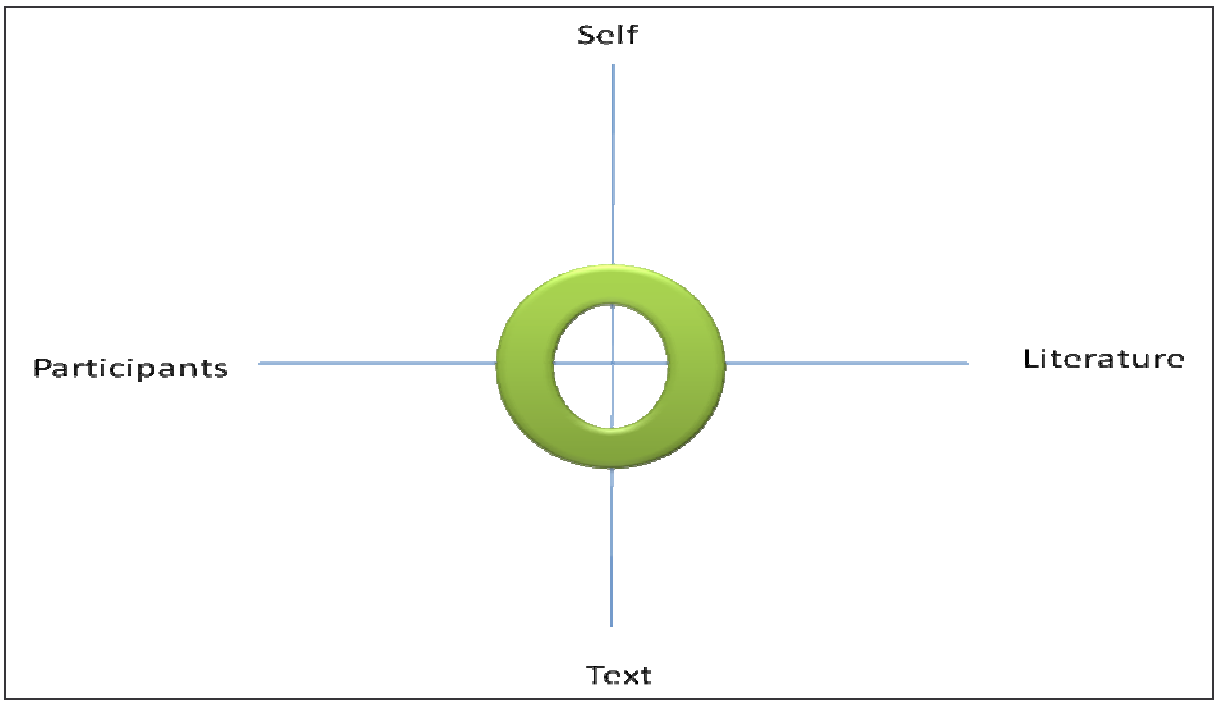
However, many scholars argue qualitative aspects from a positivist lens by advocating positivist notions of neutrality through practices such as bracketing and an authoritative paradigm of finding the truth or 'the pursuit of objectivity' (Jootun *et al*., 2009:46; McGhee *et al*., 2007:43; Waldman *et al.,* 1998:186). In addition, Koch and Harrington (1998:884) argue that a preoccupation with methodological rigour can be seen as a legacy of a positivist epistemology.

Reflexivity is therefore an opportunity rather than a problem of subjectivity (Johnson & Duberley, 2003:1295; Koch & Harrington, 1998:888). Similar to the constructs explored, the process of reflexivity is full of ambiguity and multiple trails. Qualitative research literature views the practice of reflexivity as a crucial component

of the research, interlinked with the epistemological and ontological orientation and commitments of the researcher (Johnson & Duberley, 2003:1281). The practice of reflexivity may increase the rigour of the research process as it enhances the quality of researchers' understanding of how their position and interest have affected the research process (Johnson & Duberley, 2003:1280; Jootun *et al.*, 2009:42; McGhee *et al.*, 2007:42).

The illustration in Figure 7 summarises reflexivity. Reflexivity is a deconstructive exercise for locating the intersections between the mental models of self (author), the mental models of participants, the text and the literature (Macbeth, 2001:35). **I include the reflections from my research diary throughout all chapters, because of the constructivist nature** of my epistemological and ontological commitments and orientation.

Figure 7: Reflexivity as a deconstructive exercise



Source: Macbeth (2001:35)

2.6 CONCLUSION

In this chapter I addressed the alignment between the postmodernist research philosophy, qualitative research and constructivist grounded theory as research design, as well as the appropriateness of the chosen route to research mental models of leaders in a complex context.