PLACING PSYCHOLOGY: A CRITICAL EXPLORATION OF RESEARCH METHODOLOGY CURRICULA IN THE SOCIAL SCIENCES

by

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ABSTRACT

Current literature on teaching research methodology in the social sciences points to the changing nature of our world in terms of its complexity and diversity and how this affects the way in which we search for answers to related problems. New ways of approaching research problems that relate to the demands of practice need to be explored, which is in contrast with the 'either-or' world we coach our students for, that is to be either qualitative or quantitative researchers. Also, educational policy reform in South Africa has sought to address the issue of real-life relevance of curricula, and specifically, reformists have turned to proponents of Mode 2 knowledge to inform initiatives for change. This means that tertiary institutions will have to adjust the way in which they deliver education to future generations of South Africans. The aim of this study was to map the content of undergraduate research methodology courses at South African universities and to explore the beliefs held by some academics that inform the way in which these courses are constructed. Critical theory allowed the researcher to search for unequal distributions of power and is defined in this study in its oppressive role, that is, its productive ability to bring about inequalities and human suffering. As some critical social theorists embrace specific, and at times divergent, methodologies, a pluralistic approach, based on Habermas' idea of the relative legitimacy of all theories and methods, was used to. The study revealed that there is a heavy reliance on the methods that are traditionally linked to the positivist paradigm. It also revealed that alternate paradigms focusing on philosophies that dictate the use of qualitative methods are increasingly included in methodology courses and juxtaposed against or used to supplement positivist approaches to research. As academics may struggle to let go of traditional paradigms, they may find a compromise in presenting both. By acknowledging the limitations of past curricula, academics actively seek to change these discourses, but by doing so they may be instituting new hegemonies. One of the findings of this study is thus that distinctions about the content of research courses are being made on a methodological level instead of also acknowledging the epistemological and pragmatic grounds for making choices. Moreover, it is argued that the consensus achieved regarding the curriculum for a research course is the result of conversations held between academics in an ideal speech situation that excludes other significant voices. The lecturers' dominance over the students is maintained in the dialogical activities that they undertake with colleagues that confirm their position of authority in academic society. Students recognise this authority and consent to it. It is proposed that the way forward for curriculum construction lies in establishing academic communities of practice that should be viewed as the type of university that Habermas would advocate: where academics need to share power and be open to the challenges that they face such as negotiating what is accepted as knowledge.

KEY TERMS

Research methodology, critical theory, Habermas, praxis, under-graduate teaching, philosophy of science, academic community, globalisation in education, tertiary education policy, outcomes-based education, South African Qualifications Authority, National Qualifications Framework

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Current literature on teaching research methodology in the social sciences points to the changing nature of our world in terms of its complexity and diversity and how this affects the way in which we search for answers to related problems. Also, educational policy reform in South African has sought to address the issue of real-life relevance of curricula, and specifically, reformists have turned to proponents of Mode 2 knowledge to inform initiatives for change. The aim of this study was to map the content of undergraduate research methodology courses at South African universities and to explore the beliefs held by some academics that inform the way in which these courses are constructed. Critical theory allowed the researcher to search for unequal distributions of power and is defined in this study in its oppressive role. The study revealed that there is a heavy reliance on the methods that are traditionally linked to positivism. It also revealed that alternate paradigms focusing on philosophies that dictate the use of qualitative methods are increasingly included in methodology courses and juxtaposed against or used to supplement quantitative methods. As academics may struggle to let go of traditional paradigms, they may find a compromise in presenting both. By acknowledging the limitations of past curricula, academics actively seek to change these discourses, but by doing so they may be instituting new hegemonies. One of the findings of this study is thus that distinctions about the content of research courses are being made on a methodological level instead of also acknowledging the epistemological and pragmatic grounds for making choices. Moreover, it is argued that the consensus achieved regarding the curriculum for a research course is the result of conversations held between academics in an ideal speech situation that excludes other significant voices. It is proposed that the way forward for curriculum construction lies in establishing academic communities of practice that should be viewed as the type of university that Habermas would advocate: where academics need to share power and be open to the challenges that they face such as negotiating what is accepted as knowledge.

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CHAPTER 1: DESCRIBING THE JOURNEY

1.1 Introduction

It seems that psychology is facing a crisis in its training model. Bradley (1998, p. 84) stated the following in this regard:

> If we are to change the way the sublime leads psychologists to a stance of being above the turbulence of their own subjectivities and of treating others as objects, we must change the way that psychology is taught. The main model of pedagogy in psychology, as in higher education as a whole, is still governed by the sublime, the cult of the expert, wall-to-wall monologue. The aggrandizement of the individual knower, the expert, has as its corollary the almost complete silencing, the passivation of the expert's audience. The learner's highest goal is commonly conceived as being accurately to regurgitate the knowledge that the expert has banked in them.

It is argued later in this chapter and in chapter 2 that teaching research methodology in the social sciences, specifically on an under-graduate level, is facing its own dilemma. This introductory chapter has the purpose of providing the reader with a concise framework of the research that was undertaken in fulfilment of requirements for a doctorate in psychology. To achieve this purpose, several fundamental aspects of the study that was completed are summarised in the sections that follow. These include an overview of the most important issues, in the researcher's opinion, that inform the context in which the topic is located (chapter 2), the theoretical framework in which the researcher positions herself and the topic (chapter 3), the methodology driving the research (chapter 4), the discovery of certain findings (chapter 5) and a discussion that integrates literature, theory and this study's results (chapter 6). The last chapter also contains some proposals for further research in the area. Moreover, the purpose of this chapter is to present the background and rationale of the study. This consists of a discussion of the circumstances that led to the researcher's conceptualisation of the topic and its attendant aspects such as the research problem as well as justifications for particular choices that the researcher made in terms of theory and methodology. Chapter 1 is thus a map that outlines the journey that the researcher followed from start to finish with reasons for choosing the specific followed path. The journey was not unproblematic. There were many forks in the road that the researcher had to choose between, dead-ends where the researcher had to turn back and find a more suitable route, acclivities and declivities, obstacles in the path that had to be overcome and potholes that the researcher attempted to avoid. The researcher takes heart from one of the caveats of critical theory: this document was written to show what *could* be an alternative to the status quo and not what *must* be. It is therefore not the final word on the topic.

1.2 The research question

The general topic of this study is related to the sentiment expressed by Tothill and Crothers (1997, p. v) that "[t]here is an important opportunity to be grasped in shaping Social Science research methodology teaching in South Africa for the immediate and long-term future". Issues related to this statement include curriculum development, quality assurance and accreditation of courses especially through the identification of generic research competencies. As will be described later in this chapter, this study is an attempt to address one part of this major undertaking, namely an aspect dealing with the beliefs that inform the way in which curricula are developed. The research question will be provided at the end of this section, as the reader will first be presented with the context in which the question was formulated. The scope of this study was informed by four dominant factors that the researcher identified as influential in terms of the choice of topic and the subsequent research question that was asked. These four factors are discussed below: political choices in research training, personal (in)experience, the changing context of education in South Africa and past research on methodology courses in South Africa.

1.2.1 Political choices in research training

As the reader will encounter in further chapters, the research procedures used by the discipline of psychology cannot escape being characterised as having positivist roots. This foundation has translated into a practice where psychologists follow "a process of research which is pursued by undertaking the careful observation of objectively defined phenomena, by making quantitative measurements of specified variables, and, often by doing so under the controlled conditions of an experiment" (Dyer, 1995, p. 16).

In order to conduct this type of research, psychologists have to be trained in the ways of positivist methods. They must learn how to maintain an objective, neutral stance when doing research, how to define and measure variables, how to perform experiments accomplishing aspects such as control and so on. The alternative paradigms to positivism (some of which are discussed in further chapters) must also feature a training component to familiarise scholars with suitable ways to gather and present information. Describing only these two approaches in social research and placing them as distinctive opposites is not without problems. As Silverman (1993) pointed out, after much criticism of positivism by opponents, "… it became increasingly clear that 'positivists' were made of straw since very few researchers could be found who equated the social and natural worlds or believed that research was properly theory-free" (p. 21). The type of paradigm that students are trained in is, however, not arbitrary as there are specific factors that may influence the choice of theoretical framework, for example political positioning (Popkewitz, 1990), conflict with an existing science (Terre Blanche & Durrheim, 1999b) or being in the midst of several paradigms (Mouton & Joubert, 1990).

Van Staden and Visser (1991) captured a crucial link between curriculum and personal choices made by lecturers, a connection that can probably be applied to more than just statistical content, when they stated that: "[s]tatistical techniques favoured by researchers are likely to be reflected by university curricula in statistical methods" (p. 35). Social scientists are also being challenged on other levels: "[i]n the present

climate of renewal of methodology, researchers are called upon to understand the 'why' of their designs as well as the 'how' for carrying them out" (Polkinghorne, 1983, p. ix). This statement is still relevant today as this study will attempt to explore the extent to which researchers, in their roles as academics, are conscious of these factors and the role that they play in the way they construct their courses. This research thus serves to give recognition to the importance of the context in which training in social science research methodology is provided to students. Even though Silverman (1993) stated that it is meaningless to ask “To what school of social science do you belong?” (p. 22), one of the arguments that will be developed in this study is related to the level of distinction (epistemological or methodological) that informs the curricula of courses in research.

1.2.2 Personal (in)experience

The initial thoughts for this study coincided with my entrance into the life of an academic and my personal (in)experience with teaching at a tertiary level.[1] This experience soon gave rise to questions about under-graduate research methodology courses that remained unanswered. One of the problems with psychology as a discipline identified by Bradley (1998, p. 71) is "the idea that psychology can be lived, taught, and researched without reference to the dynamics of personal experiences for teacher, student, or subject … ". My issue of concern, in the context of teaching, centred on the task of educating students about psychological research which manifested as an unrewarding and arduous task. I started wondering where I had gone wrong when the students wrote things such as "research methodology was the worst subject of my life" and "why do we have to do this CRAP!" on their evaluation forms. Indeed, Dunn (2000) lamented that "[m]ost courses in the under-graduate psychology curriculum generate student enthusiasm and understanding with ease. Exceptions include statistics and research methods… " (p. 128). She further described the ideas presented in research methodology courses as 'foreign', 'not intuitive', 'difficult' and 'novel'. Terre Blanche and Durrheim (1999a) made a similar statement to Dunn’s: “[r]esearch methodology must be one of the most ardently disliked of social science courses … ” (p. v).

These sentiments reflect my own experience (and that expressed by my colleagues) of the negativity amongst students towards research methodology courses. Even authors of methodology texts have tried to correct this situation due to their own encounters with research courses: “[a]s students we experienced some of these frustrations and observed the debilitating effects they have had on our friends … “ (Terre Blanche & Durrheim, 1999a, p. v). The majority of research methodology courses (88,3%) at South African higher education institutions are compulsory (Tothill & Crothers, 1997); when faced with a class full of negative students each year who are not doing the subject by choice, lecturers may experience feelings of inadequacy and helplessness themselves.

When this study was first conceptualised in 1997 two key questions were identified for examination: what are under-graduate students being taught about research methodology in the social sciences and how is

[1] According to Bradley (1998), using the first person singular sets the writer up as the expert over the ignorant on certain topics. This is not the intention in this study. Using the first person allows the researcher to incorporate her experiences and thoughts during the research in addition to the academic description of the process. This also applies to the final chapter where the researcher uses personal terms to describe the reflexive occasions of this study.

this content being taught? I thought that I could kill two birds with one stone: get an academic qualification and solve my teaching problems at the same time. My research question thus became the following: How could I develop a *non-linear* science-practice approach for teaching research methodology that moves away from a *content-based* research methodology curriculum that demands memorisation of knowledge from students for the purposes of assessment and is not sufficient to equip them with the skills of *problem-solving* needed in the practice of research? I thought that changing the content and method of instruction of research courses would result in changing students' attitudes. As Graziano and Raulin (2000, p. 1) stated, "[s]cientists seek answers to their own questions". The study thus limited its scope to searching for answers to the 'what' and 'how' of teaching a research course.

While I was collecting, analysing and interpreting the data I began to realise that I needed to revisit my original research question. The issue at the heart of my findings seemed not to be about teaching research methodology; it is rather about the assumptions and fundamental issues that informed its very nature. I had thus originally not started at the beginning of the problem, but somewhere towards the end. I realised that I could not examine how research methodology is taught if I did not know how academics think about it and how that thinking came to be accepted. Thomas McCarthy (1994) captured this well when he said that critical theory does not wish "to leave to the participants and their traditions the final say about the significance of the practices they engage in" (p. 245). There is a need for "an objectivating 'outsider's' perspective to get beyond shared, unproblematic meanings and their hermeneutic retrieval" (McCarthy, 1994, p. 245). We can create this distance, in the Foucaultian manner, by exposing base origins of social practices "in contingent historical circumstances to dispel their appearance of self-evident givenness by treating them as the outcome of multiple relations of force" (McCarthy, 1994, p. 245). The contexts in which research methodology curricula are constructed thus need to be grasped to enable an account of "how and why purportedly rational practices came to be taken for granted" (McCarthy, 1994, p. 246).

This study is not, however, just an academic exercise to satisfy the researcher's personal quest for academic rewards. The most current literature on teaching research methodology in the social sciences points to the changing nature of our world in terms of its complexity and diversity and how this affects the way in which we search for answers to related problems (Brew, 2003; Tashakkori & Teddlie, 2003). New ways of approaching research problems that relate to the demands of practice need to be explored which are in contrast with the 'either-or' world we coach our students for, that is to be either qualitative or quantitative researchers (Newman & Benz, 1998). This study therefore has implications for the way in which academics position themselves (and their students) in terms of curriculum practice.

1.2.3 The changing context of education in South Africa

George (1997) stated the following about education: "There is a fundamental philosophical shift in curriculum policy, practice and evaluation because of its unrelenting focus of what students have learned rather than on what systems and schools have provided and teachers have taught" (p. 3). Schwab (in Schubert, 1986) argued for moving away from curriculum inquiry based on the theoretic paradigm, that is

concentrating on *what* a curriculum should be like, to a concern for *how* curriculum inquiry should proceed. As discussed in a later chapter, changing international trends in higher education have made their mark on South African policy. This means that tertiary institutions will have to adjust the way in which they deliver education to future generations of South Africans. According to Scott (1997, p. 23) "… the knowledge industry is a key sector within the post-Fordist economy, and higher education systems are a key component of that industry". Post-Fordism (or neo-Fordism as Robins and Webster (1999) prefer calling it because of the continuing similarities with its preceding era[2]) is characterised by features of globalisation and concepts such as skills and knowledge, inter-sectoral co-operation, flexibility and so on. Robins and Webster (1999) argued that this new context is driven by socio-economic imperatives which means that the structure and content of higher education will have to be linked to the requirements set by industry to train workers who will cope in this environment.

As is described further on in this manuscript, many of these features have made an appearance in documents released by government departments tasked with transforming the education sector in South Africa. For example, the National Commission on Higher Education (1996, p. 7) stated that "[h]igher education institutions will increasingly have to offer a greater mix of programmes, including those based on the development of vocationally-based competencies and skills needed in the workplace". In particular statements have been made about the role that (social science) research should play in achieving the government's goals. This citation from the White Paper on Science and Technology released by the Department of Arts, Culture, Science and Technology illustrates the point:

> The dramatic political changes in South Africa over the last few years provide a unique opportunity for social renewal in respect of our value systems, the role of the individual in society and with respect to the state. We will need new knowledge to assist us consolidating democracy, the protection of human rights and the accountability of public authorities in South Africa. Ongoing policy research in areas such as health care, education and employment creation, which are central to improving the quality of life of millions of poor South Africans will also require the active and continuing involvement of social scientists. South Africa needs to clarify the relationship between central and provincial levels of government in practice. Resolving the inherent tensions in any such system will require creative thinking about mechanisms and processes for which there are few, if any, existing models (http://www.gov.za/whitepaper/1997/sc&tecwp.htm).

This policy statement implies that the social sciences have not been making the kind of contribution that is necessary to effect the transformation in South African society that the government requires and that this should change. Tothill and Crothers (1997) asserted that this situation could be remedied by improving the class of education received by students in the social sciences, as future researchers.

[2] According to Robins and Webster, a working environment of mass production and repetitive actions marked the period of Fordism. This is in stark contrast to the post-Fordist era where workers have to deal with constantly changing problems.

1.2.4 Past research on methodology courses in South Africa

Although much literature has been dedicated to assumptions underlying the construction of school subjects (e.g. see Young, 1990), higher education has received relatively less attention. Some attempts have been made to theorise about the topic of teaching research specifically, such as Hoshmand's (1989) lengthy article in which she outlined the merits of including alternate research paradigms in the curricula of methodology courses. She also provided guidelines on how these courses should be taught by discussing content sequence and structure, outcomes, instructional resources and so on. Others such as Lowe (1992) and Richardson (1996) also raised the quantitative versus qualitative research debate when they addressed the need to support more teaching in qualitative approaches. Feminists have probably been the most vocal group of academics advancing a united voice about changing the curriculum to include alternate ways of doing research, usually referred to as post-positivist (e.g. see Bozalek & Sunde, 1993/4).

Most of the research cited above has been published in the international context. A gap remains in information for the South African context. Some attempts have been made to fill this gap such as the research conducted in 1997 by the Centre for Science Development on methodology courses in South Africa. Although Tothill and Crothers' (1997) report covered under-graduate and post-graduate courses at universities and technikons, there is enough differentiation between these categories in most cases to make the results relevant to this study. No specific findings were highlighted about psychology; nevertheless the following information about research courses in the social sciences can be fore-grounded:

- There were at least 195 methodology courses at universities at the time of the research. Most of these courses (95) were presented at the fourth year level. More courses were presented at historically white universities (HWUs) than at historically black universities (HBUs) especially at the third year level (27 compared to 30) and fourth year level (34 compared to 61).
- Staff to student ratios in methods courses were most favourable at HBUs.
- Courses were not always devoted to methodology alone, but were mixed with other topics (almost 50%). Sociology, communication and social work departments tend to be the disciplines that present courses solely on methodology.
- Common topics taught across disciplines and institutions were literature review, conceptualisation, research design, data collection, data analysis and report writing.
- Additionally, courses offered some coverage of South African content, interdisciplinary content, quantitative and qualitative methods, meta-theoretical coverage and research ethics. Two aspects that received either no coverage or little to some coverage were apprenticeship/mentoring of students and community involvement.
- Only a quarter (358) of the social scientists in academic departments (approximately 1400) perceived themselves to be experts in methodology. The most experts in a discipline were from anthropology departments (70.04% of staff) while the least hail from political science and public administration (20.85% of staff). Psychology is ranked sixth on this list with a percentage of 38.07 of staff considering themselves to be specialists in the field of methodology. Tothill and Crothers also found

that less than 50% of the academics teaching methodology were conducting research into this area at the time of the study.

- HBUs were more likely to nominate their courses as barely adequate (42.9%) compared to HWUs (12.3%). This perception was reversed with the description of 'adequate' being chosen by 59.30% of HWUs in comparison with 40.80% of HBUs choosing this option. It seems that one of the aspects that determined the evaluations that departments made of themselves was the quality of their staff (mentioned by 40.70% of universities of which 25% were HBU departments and 15.70% HWUs).
- Although the study did not include any student feedback on research courses a question was asked about the content that students find problematic. Statistics and writing skills were on top of the list while disciplines training future professionals reported student opposition to methodology courses in general. It is ironic that the report points out that the skills that students need most in the workplace are those that they experience difficulties with.
- Other aspects of education that had an effect on the level of content that could be presented to students were the numeracy, literacy and information technology skills of learners. The dialectic between theory and practice was also a point of difficulty for students.
- Participants believed that an improved information technology infrastructure would lead to better quality teaching in research courses.
- The lack of research culture in general at some institutions or within individual departments put a damper on methodology training in general.

These findings are useful for providing a general picture of research methodology teaching at tertiary institutions throughout South Africa, but lack detail on specific content provided by departments (although this information was probably available from the questions asked, it was not reported on at any length). Noteworthy conclusions about psychology itself were also lacking. This study could thus update and complement this information in order to develop a national strategy for addressing under-graduate research methodology teaching.

Landman (1990) examined the literature on research methodology available at the time of preparing for her PhD thesis and came to the conclusion that as researchers were being given a wider choice in how to do research, that is not only positivistic criteria, the following should be included in research training: science of philosophy needed to justify different research approaches, collecting, analysing and interpreting quantitative and qualitative data, combining quantitative and qualitative data, research designs, hypothesis formulation and testing, grounded theory formulation, conceptualisation, logical verification of arguments and phenomenological verification of research actions. She did not, however, specify the group of students that this training should be formatted for, but concluded that any researcher in the educational field should be well versed in the various philosophies of science and research traditions and be able to practice them in a competent manner. It thus seems that developing dualistic training in research methodology (discussed in later chapters) has already been suggested for South African higher education more than a decade ago.

In a series of articles, Botes, Van Rensburg and Groenewald (1991), Groenewald (1991), Oosthuizen (1991) and Van Staden and Visser (1991) raised issues about the type of design employed by

researchers who had published in the *South African Journal of Sociology* (*SAJS*). Although the initial study conducted by Van Staden and Visser was critiqued by some of the contributors mentioned above, the two researchers drew some interesting conclusions. They postulated that, as most sociology students with a first degree were conversant in basic statistical techniques, they would be able to understand 75% of the research methods that were employed in the articles of the *SAJS*. Not so for highly regarded international journals, however, where they estimated that approximately 20% of the articles would not be understood by students who had not received training in advanced statistics. Following this deduction they advised that a "thorough referencing of local curricula against research methodology courses presented in the social sciences at universities in the United States and Europe seems called for in order to protect local standards of research" (Van Staden & Visser, 1991, p. 41). Comparisons between the content of research courses and the techniques preferred by national and international researchers should also be carried out (Van Staden & Visser, 1990).

Two of the explanations Van Staden and Visser (1990) provided for the lack of use of advanced statistical analysis in the research published in the *SAJS* are of relevance to this study: (1) researchers and lecturers may not be well versed in advanced statistics and thus would probably not use or teach them, and (2) social scientists may be adopting paradigms that encourage qualitative approaches and therefore use methods that reflect this trend. They rejected the second explanation, however, as not many of the articles dealt with qualitative methods. Oosthuizen (1991) concurred on the point that sociologists lack skills in statistics and therefore avoid teaching them, but also added to these reflections by suggesting that sending students to receive statistical training from statisticians worsens this situation as the content of these courses is removed from the practical world in which the sociologist works.

The authors published similar articles in the *South African Journal of Psychology* (*SAJP)* (Van Staden & Visser, 1990; Visser & Van Staden, 1990) and the *South African Journal of Science* (Van Staden & Visser, 1992). They postulated that there was a fair overlap between research methodology curricula and the topics being reported on in the *SAJP*, but that psychology students would only understand 60% of the statistical methods that were used, extending this figure to 76% if the content included the field of reliability and validity coefficients. Qualified psychologists are in the same position as sociologists when it comes to understanding methods used in international literature (Visser & Van Staden, 1990). Although this research provides a picture of the trends in research methodology at the time (even though skewed towards quantitative approaches and statistics [Botes et al., 1990] and representative of only a small number of social scientists), the study was conducted more than a decade ago and thus a more current investigation would be necessary to have a major impact on the direction of this study.

Furthermore, little seems to be known about the inherent assumptions social scientists/lecturers have about research and the influence this has on the way they construct under-graduate research methodology courses in South Africa, especially with the changes in higher education policy as described above. It is therefore hoped that this study can make a contribution to this body of knowledge.

Given the three influencing factors above and my earlier reflection on the research question, the research evolved into a quest for understanding not only what is included in the curricula of under-graduate

research courses, but also to uncover why the individuals constructing the courses include and exclude certain content. As Brew (2003, p. 9) argued "[a] heightened knowledge about the ways in which academic researchers conceptualise research and scholarship throws new light on the relationship between teaching and research". The research question became: What do the curricula of research methodology courses look like and what are the beliefs held by academics that inform the way in which they think they should or should not construct under-graduate research methodology courses?

Some sub-questions are:

- Can specific beliefs be linked to certain profiles of research courses?
- Are there particular social, economic or political forces affecting the beliefs?
- Do these beliefs contribute to some sort of status quo being upheld?
- Do the beliefs reflect changes in social research in South Africa?
- Are there better beliefs that could inform the construction of courses?
- Are there alternative ways of shaping research methodology curricula?

With these questions in mind, a theoretical framework that would be conducive to explaining the answers was needed. In the section that follows a brief introduction to critical theory is provided.

1.3 Theoretical stance

Critical theory was chosen as the theoretical framework for this research for two reasons: (1) it has been previously been applied to the field of education (e.g. see Carspecken, 1996; Carspecken & Walford, 2001; Freire, 1970; Popkewitz, 1987; Popkewitz, 1991; Popkewitz, 2000; Schubert, 1986; Young, 1990), and (2) aspects of the theory coincide with the researcher's worldview. Also, it is the researcher's stance that the social, cultural and economic conditions that impact on the construction of curricula are best examined by a critical social science. I draw on Popkewitz's (1990) definition of critical as being an approach that "considers the conditions of social regulation, unequal distribution, and power" (p. 48). In educational research a critical approach explores the conflicts and tensions in an academic setting and links them to broader issues in knowledge production as regulated by society. This theoretical approach will allow the socially constructed character of what is conceived to be legitimate knowledge to be deconstructed, and considers how that knowledge is ordered and obtained in the field of research methodology.

By using critical theory, distortions and contradictions within these social practices can be shown and thus highlight the way in which power is circulated in higher education:

> [i]t is clear … that any 'regime of truth' involves privileging certain types of discourse, sanctioning certain ways of distinguishing true from false statements, underwriting certain techniques for arriving at the truth, according a certain status to those who competently employ them, and so forth (McCarthy, 1994, p. 253).

These regimes are usually not apparent social realities. They are held in place by conditions that lie deeper than what is evident on the surface, thus prompting critical theorists to search for the maintaining underlying mechanisms. If it is accepted that social reality has more than one layer and furthermore that people are not aware of the deeper structures that govern their lives, it can be said that they accept the way in which society functions. Critical theorists refer to this as a false consciousness and propose that this functions to reproduce the current state of affairs that benefits powerful individuals or groups. Social reality is thus problematic in certain cases as it oppresses people who are not privileged. Critical theory goes further than exposing, and therefore making people aware of, the taken-for-granted, the established order, the status quo, to propose alternative actions that people can take in order to transform their social reality. Specific to this study it is important to examine and study the assumptions on which curriculum development is based as our paradigms support and sustain what we base the transmission of knowledge on (Brew, 2003; Chin & Russo, 1997; Schubert, 1986).

Although this study adheres to some general principles outlined by a critical theory, the researcher identifies with the unease expressed by the earlier Frankfurt School concerning the rise of instrumental reason and the control of society that this type of philosophy entails. Roderick (1986) captured this idea succinctly: " … the ever-expanding application of science and technology (grown increasingly interdependent) made possible the domination not only of external nature, but of society and the inner nature of individuals as well" (p. 36). For Marcuse (1964) this signified an ideology[3] where calculation, standardisation, manipulation and instrumentalisation of nature and people are paramount. In this ideology, technology has the answer to any problem facing humankind, a viewpoint known as technocentrism (Smith, 1998)[4]. This citation from Robins and Webster (1999) aptly illustrates the researcher's worldview: "[m]odern society is fixated by the idea of progress, growth and development without end, and by the power of instrumental reason to achieve this dream" (p. 151). This technological ideology seems to be included in current thoughts on the type of people organisations should employ in order to survive in the changing world economy. Although it will be suggested at the end of this study that future research should concentrate on the demands that the workplace and society place on students in terms of their research skills, a scepticism of unquestioningly accepting a technological ideology should remain steadfastly in place.

[3] French philosopher Destutt de Tracy first used the term ideology in 1796. Marx and Engels extended the idea in their work entitled *The German Ideology*, which they wrote between 1845-47, but as Foster (1991) noted, there are many different strands of theorising about the concept. The definition of ideology that will be used in this study is both general – it "refers to widespread ideas, values, representations and practices which serve to legitimise and maintain the social order" (Foster, 1991, p. 18) – and critical meaning that it maintains "uneven relations and distribution of resources and power in society" (Foster, 1991, p. 348). Thus, the basis of the theoretical stance is the milieu that individuals have been socialised in as well as how the systems and practices of this environment uphold established inequalities in people's lives.

[4] It is ironic that some people believe that technology is the answer to solving the problems that humans created in nature when they implemented advanced technologies for the benefit of humankind. For example, fishing trawlers that could catch bigger yields were built resulting in rapidly declining populations of fish and further ecological disasters. Currently cutting edge equipment is used in many parts of the world to measure the size of fish populations so that the number of fish caught can be controlled and so give them a chance to recover.

1.4 Aim of the study

This study is positioned as a descriptive and exploratory undertaking that will uncover the nature of under-graduate research methodology courses and the beliefs underlying their current structure. The general aim of the study is to gain a picture of under-graduate research methodology courses in order to make suggestions about transformative actions that can be taken to improve the status quo. My assumption can thus be articulated as follows: under-graduate research methodology courses at South African universities are in need of change. This statement is based on my personal experiences and theoretical convictions, as well as previous research conducted in the South African context as discussed above. The aim of the study needs to address the two issues identified, which can be summarised as an exploration of the path to transformation of under-graduate research methodology courses. The two objectives discussed below are based on the contribution that this study can make to fill the gaps identified in current literature dealing with higher education and specifically the teaching of social science research methodology in the context of social change on a grand scale in South Africa.

1.4.1 Objective 1

The first objective of this study is to collect adequate information on the current content included in under-graduate research courses at South African institutions of higher education, specifically universities. This step is necessary to provide a foundation for formulating questions in order to proceed to the next objective, namely uncovering and questioning the assumptions held by academics regarding social research. Certain limits of scope were placed on objective one. Firstly, because this study is located in the broader field of the social sciences and humanities[5] only those courses that fall within these academic faculties were targeted. Although psychology is the specific discipline in which this study is being completed, I decided to broaden the scope of the research to include all disciplines in the social science and humanities. There are five reasons for the broader scope:

(1) Data were available for all social sciences and humanities on the NRF's Nexus database and therefore made the researcher's attempt to describe events on a large scale possible in order for the study to be worthy of a doctoral qualification.
(2) Psychology is not the only discipline to be affected by major social change in South Africa.
(3) Tothill and Crothers' (1997) finding of an overlap of 75% in the core curriculum of methodology courses as reported in section 2.4, which allows the researcher to make the assumption that

[5] It is acknowledged that there is much debate about the definition of social sciences versus humanities and which disciplines constitute each of these categories. The rule of thumb that was applied in this study was to include as many disciplines as possible in either the humanities or social sciences faculties depending on the term used by individual tertiary institutions. In some cases a discipline traditionally included in the social sciences or humanities faculty is placed in other faculties such as the health sciences. Care was taken not to exclude such cases.

psychology will not differ radically from other social sciences in terms of the choices lecturers make about content[6].

(4) Tothill and Crothers also found that research training is interdisciplinary in some cases, therefore rendering psychology one of the many disciplines that contribute towards the content of courses. It would therefore be difficult to single out the role that psychology plays at all times in deciding the content. Also, trends towards interdisciplinary co-operation will become increasingly common.

(5) The researcher's personal issues about the positioning of research methodology in the discipline of psychology (this will be expanded on in the final chapter).

The third reason given above does not imply a comparative study of the extent of change in psychology in relation to other social sciences. Certain arguments are made in this manuscript that psychology has been particularly loath to transform the way in which it studies human behaviour (Polkinghorne, 1992), and as such it may be able to learn from its sister disciplines, hence the title of the study. It is the researcher's contention that psychology should be on the forefront of changes to research methodology training in the social sciences as "human issues are often left behind in the stampede to celebrate the supposed liberatory virtues of technology-carried knowledge activities" (Muller, 2000, p. 45) in the knowledge-driven era that we are living in today. Psychology is in a position to ensure that the social and psychological aspects of individuals are not excluded from this trend. From an analysis of the data collected in this study, suggestions can be made for improving the way in which curricula are constructed.

Secondly, to control the magnitude of this study only universities were chosen for inclusion. This refers to both historically white (or advantaged) and historically black (or disadvantaged) tertiary institutions that refer to themselves as universities according to the Higher Education Amendment Act (2001). The term under-graduate is used to refer to courses that conform to level 7 of the South African Qualifications Authority's descriptors for higher education. In some cases this included courses consisting of four years of study if they are still considered under-graduate by their individual departments[7]. The reader may ask why this research focuses on under-graduate and not post-graduate courses when it is usually in the latter courses that students are prepared for a career in research (Tothill & Crothers, 1997). It is also at a post-graduate level that students are expected to be able to do independent research. The counter-arguments made by the researcher are that (1) it is at the under-graduate level that students first encounter research methodology and thus form their first impression of the subject[8], (2) very few students progress to the post-graduate level and therefore the majority of students practice their discipline using the knowledge they gain in a first degree, (3) the requirements contained in government policy on higher education require under-graduate students to have a certain level of research proficiency, and (4) it is mostly at an under-graduate level that the researcher has encountered problems in the research courses,

[6] Not all social scientists would agree with this. Botes et al. (1991, p. 51), for example, insisted that "differences in the nature of the two disciplines [psychology and sociology] have much to do with the different approaches in research" and thus the extent to which certain research designs are used psychology, sociology, education and so on cannot be compared.

[7] A justification for including fourth year courses in this study is the finding in the Tothill and Crothers report (1997) that most methodology courses are taught at fourth year level (out of a total of 195 courses from first year to fourth year, 95 courses are on fourth year level compared to 16 in the first year, 27 in the second year and 57 in the third year).

[8] Participants in Tothill and Crothers' (1997) research recommend introducing students to research as early as possible.

as discussed earlier. The target group for this study is thus limited to research courses presented to under-graduate social science students.

1.4.2 Objective 2

The second objective of this study is to collect information about the assumptions on which academics base the way in which they construct research courses. To this end, participants who were willing to partake in the study - either through face-to-face interviews or electronic format - answered questions formulated by the researcher in an interview guide. The same principle argued in objective one (including all social science disciplines) was applied for selecting a sample. The researcher attempted to gain as much diversity as possible by targeting universities in the historically advantaged and disadvantaged categories and in different geographical regions, as well as those whose training models and courses represent a variety of topics. The ability of the participant to provide the researcher with adequate information about the construction of the course was also a requirement.

The research design that was used to achieve the two objectives presented above is discussed in the section that follows.

1.5 Methodology

The two objectives set out above informed the research design for this study. The objectives translate neatly into two phases that are used to approach the broader research question. Both quantitative and qualitative methods are incorporated in this research in order to adequately address the research question. The purpose of using both types of research is not for one to complement the data gained from the other or to achieve validity through multiple methods triangulation. Rather, it is argued in the methodology chapter that the ontological level (critical realism) indicates two types of data: one set that maps an external reality and another set that describes the interpretation of this reality. A quantitative method will be used in the first case and a qualitative in the second. It is argued in the chapter on the research design that criticalists[9] following a Habermasian approach to research (Habermas, 1971) would not reject this modus operandi as some critical theories embrace theoretical and methodological pluralism.

Phase one addresses the need stated in the first objective, that is to gain a description of current under-graduate research methodology courses. The research conducted in phase one was on a large scale making use of a survey design in order to include as many research methodology courses as possible. The information that was gathered from the NRF's Nexus database and mainly telephonic conversations with academics was entered into an Excel spreadsheet. The data were analysed and reduced on a descriptive level.

[9] This is a term for critical theorists used by some authors such as Hook (2001) to signify people who work in the critical political realm. The two terms will be used interchangeably in this study.

Phase two allowed the researcher to make a selection of the surveyed courses so that the questions arising from phase one could be put to academics. Gerson and Horowitz (2002) succinctly accentuate the need for conducting interviews in phase two:

> To unravel the complexities of large-scale social change, it is necessary to examine the intricacies of individual lives. Individual interviews provide the opportunity to examine how large-scale social transformations are experienced, interpreted, and ultimately shaped by the responses of strategic social actors. Macro-social trends thus provide the starting point for formulating a research problem. The empirical puzzles they raise, however, can be solved only by examining micro-social processes as they unfold in the lives of individuals (p. 201).

The individuals in this case are the academics who construct and lecture under-graduate research courses.

1.6 Structure of the content

The study is set out in six chapters including the introduction that has been presented above. Chapter two contains a discussion of the context in which research methodology training in the social sciences takes place. This includes a historical overview of the circumstances in which the social sciences, and particularly psychology, developed and the impact that this has had on the content of research methodology courses. A treatise on the current trends in South African higher education follows the analysis of the past. It is argued that the international focus on globalisation and massification of education has had a major impact on current government policy. Some of the implications of the statements made in policies for under-graduate research methodology training are indicated in the chapter. The paradigm of choice for this study, critical theory, is outlined in chapter 3. It is recognised, however, that there is no unifying critical theory (Kincheloe & McLaren, 2000) and as such the researcher uses some of the general principles of the theory for guidance.

Chapter 4 describes the research design that was used in this study. This chapter begins with some reflections on research within a critical theory framework, including a discussion of the justifications for using plural methods. Thereafter, the two phases of the research are described. The first phase in itself consists of four phases of data collection that together provide a detailed description of how the survey of the content of under-graduate research courses was conducted. This includes information on how the departments were contacted and how the gathered data was structured and analysed to provide insights that would inform the next phase of the research. The value of this phase of the study is twofold: firstly a database was constructed that contains the content of all the surveyed courses, including the frequency of topics; and secondly a diagrammatic profile of individual courses was drawn up. The second part of the chapter provides an outline of the way in which the interviews were conducted. Four approaches to interviewing are distinguished to set the scene for a general discussion on a critical theoretical approach. The rest of the chapter contains a description of how the sample was selected and how the data from the

interviews were analysed using a critical hermeneutic approach based on guidelines provided by researchers such as Carspecken (1996), amongst others. Thoughts on the meaning of the validity and reliability of this research conclude this chapter.

In chapter 5 the results of both phases of the study are presented. Phase one consists of an overview of the content presented in all the research courses included in the study. Frequency tables are used to illustrate the content and the data is further reduced using Strauss and Corbin's (1990) conditional matrix idea. A brief discussion of some applicable literature is also provided. In summary some suggestions are made for further points of enquiry. This is followed by the results of phase two where the sample that was interviewed is described and the themes that were generated from the data are displayed.

The way in which the methodology and results chapters are structured do not follow the order in which the research was conducted. The planning of the research design, collection of data, analysis and interpretation of the results for phase one were completed before phase two could commence. The first parts of chapter 4 and 5 could therefore be read as a unit. The researcher decided, however, to keep to the conventional structure of a thesis by placing methodology and results in separate chapters to 'fit into' the community of academia in terms of the suitability of the layout of a thesis. By saying this the researcher would like to indicate to the reader that her position on the research process is that it does not follow a linear sequence as many textbooks portray. This will be discussed further in chapter two.

The final part of this study, chapter 6, contains the discussion of the results in terms of the literature and theoretical position set out in chapters two and three. The main beliefs held by academics about the reasons they construct their courses in certain ways are questioned. This chapter also includes a plan for further research informed by the results of this study, as well as some personal reflections on the reciprocal interplay between researcher and research.

1.7 Conclusion

In this chapter a framework was provided of the contents and structure of the study. The reader was presented with some of the arguments and ideas that informed the general direction that the researcher chose for answering her research question. The research question (What do the curricula of research methodology courses look like and what are the beliefs held by academics that inform the way in which they think they should or should not construct under-graduate research methodology courses?) was informed by four factors - political choices in research training, personal (in)experience, the changing context of education in South Africa and past research on methodology courses in South Africa. The material presented in this chapter briefly exposes the steps taken by the researcher on the path that she mapped out for approaching this project. The researcher now invites the reader to follow her further down the path, to stop and take time to look more closely at certain aspects of this study along the way so as to understand how the researcher reached her final destination (as there may be many other paths

that lead to many other destinations). Chapter 2 follows with an exploration of the context in which undergraduate research methodology courses are taught in the social sciences.

CHAPTER 2: THE CONTEXTS THAT INFORM THE TEACHING OF UNDER-GRADUATE SOCIAL RESEARCH METHODOLOGY

2.1 Introduction

As the topic of this study focuses on how under-graduate research methodology courses are constructed, the different ways in which this knowledge production takes place in the social sciences, and specifically the discipline of psychology, need to be explored. Psychology (and its wider context of all social sciences) made its appearance at the time when science reigned supreme and was on the verge of answering pre-eminent questions about the nature of reality (Robertson, 1995). The Enlightenment era generated the tradition that applying scientific principles would lead to continuous progress in knowledge. Natural science methodology was to be faithfully used in the search for absolute truth. Once a certain threshold of knowledge was reached "the vision of the heavenly kingdom would become an earthly reality" (Polkinghorne, 1992, p. 227). The methods used in this pursuit were developed to examine physical reality. This was the context in which the social sciences developed, and which shaped its concepts, methods and approaches (Hollinger, 1994).

This chapter consists of two sections. The first of these sections begins with an outline of the birth of psychology within a discussion of positivism and idealism. This follows with an examination of some of the concepts that developed and upheld the assumptions of positivism and idealism within this time period. More importantly for this study, the influence of each of these movements on the nature of social research is portrayed. This part concludes with a brief review of the way in which modernism inspires the teaching of social research. Following this, alternative voices to the modernist position are presented in the form of the naturalistic-ethnographic, phenomenological and cybernetic paradigms. Post-modernism is also discussed as an element of these alternatives. The influence of these paradigms on the nature of social research is consequently discussed. The reader may form the impression that the type of paradigm that informs the way in which social research is taught is direct and causal. Rather, it is argued, according to Porter (2002), that there would be a tendency to act in a specific direction (structure a course in a certain way), that is, there are no general, fixed laws that govern the way in which a research course is constructed and taught. Willig (1999) refers to these tendencies as potentialities or current structures that enable or constrain our future behaviour. The discussion of the various paradigms is centred on the view of quantitative research that has been popularised by some under-graduate textbooks and critics of this type of research, namely that it is based on positivist tenets and equated with empiricism and experimental designs. This is placed in direct opposition to paradigms that "describe and illuminate the meaningful social world" (Silverman, 1993, p. 21) such as interpretivism.

The second section of this chapter profiles the current educational paradigm, policies and practices in South Africa. The paradigm shift that has taken place in education, and specifically higher education, has consequences for the way in which not only the transmission of knowledge, but also the fundamental structure of institutions of learning is being changed. National and international literature describes the

arrival of the post-Fordist era in the economic arena and also extrapolates its characteristics to a movement in academic circles called 'Mode 2 learning' (which is different from Mode 1 learning). This new paradigm seems to directly address the needs expressed by organisations for workers who can maximise the functioning of the workplace. A brief discussion about knowledge and the influence of modernist assumptions on education precedes a portrayal of this shift and its implications for and influences on South African higher education. This section, and the chapter, is concluded with a description of the structures (such as the National Qualifications Framework) and the teaching approaches (outcomes-based education) that have been put in place by government to redress the imbalances of former education systems in the country as well as to address new ways of thinking about learning.

2.2 The birth of psychology as a science

Two dominant philosophical movements, positivism and idealism, can be distinguished in the history that informed and still informs the way in which research is carried out in the social sciences (Sciarra, 1999). A brief description of each of these philosophies is provided below, focusing on their influence on different research methodologies.

2.2.1 Positivism and its influence on social science research

When Isaac Newton was born in 1642, science was not as advanced and well-known as it is today. Newton became instrumental in changing the status of science and when he died in 1727, science was the dominant force in human thought. His influence on this change is reflected in the words of poet Alexander Pope: "Nature and Nature's laws lay hid at night; God said, Let Newton be! And all was light" (as quoted in Gamow, 1961, p. 51). This era marked the beginning of the transformation of traditional or pre-modern to modern societies over the next two centuries (Hollinger, 1994). Although the earliest signs of the modern society are found from the 16th century, it was only from about the end of the 19th century that this society's ideas dominated. This domination continued until the 1930s (Jordaan & Jordaan, 1998). The image of the world became defined by classical science and was characterised by terms such as linear, independent and closed. Newtonian principles defined the world as regular, predictable, controllable, completely knowable, passive, directionless, and incapable of spontaneously producing order (Goerner, 1995).

The growing influence of science (especially Newton's work) in all areas of life and the modernisation of society could not be understood solely through discussions on modernity[1] by philosophers such as Rousseau, Kant and Hegel. The need arose for understanding modernisation and for predicting its outcome as this implied some sort of stability and control in rapidly changing times (Hollinger, 1994). Europe transformed itself from a rural to an industrial society during the 18th and 19th centuries and the success of science in studying matter (body) - as made distinct from the spirit or soul by Descartes - prompted a summons to investigate human beings (these investigations having been done only in the realms of theology and philosophy) with the same scientific methods (Polkinghorne, 1992). Thus originated the social sciences (and its various academic disciplines such as psychology) that offered a more specific and empirical[2] approach than the philosophers did to promote the understanding and control of modern society (Hollinger, 1994).

The core principles and values of the modernist approach to psychology that developed in this era were (Liu & Liu, 1997):

- the valuing of numbers and verification of experience, or empiricism[3]

[1] Modernism refers to the constellation of intellectual and artistic movements that emerged around the middle of the nineteenth century. It refers to the basic assumptions, beliefs and values that arose in the Enlightenment era (Neuman, 2000). The Enlightenment project was based on the assumption that ignorance is the basic source of human misery or suffering. Human progress can only be brought about through eliminating ignorance and replacing it with scientific knowledge (Hollinger, 1994). According to Burr (1995, p. 12), "[t]he Enlightenment project was to search for truth, to understand the true nature of reality, through the application of reason and rationality". The individual became responsible for searching for reality, a position that was contrary to the medieval period where the church was the discoverer and illuminator of the path to truth. Individuals could now make judgements about reality; these judgements were based on objective scientific evidence. By the beginning of the nineteenth century, modernist doctrines came to dominate and define the landscape of art and literature. Modernism holds a belief in (1) the inevitability of progress in all areas of human endeavour (2) the power of logical reasoning (3) a commitment to originality in both thought and artistic expression (4) the superiority of present civilisation in the extent of its knowledge and the sophistication of its techniques and (5) humanist values, i.e. evaluating ideas according to the effect they have on human welfare. Modernism is characterised by the hope of solving the problems of modernity and sees itself as the 'final solution' to these problems (Sim, 1998). A distinction needs to be made between *modernism* and *modernity* as they are not synonymous. Modernity refers to a broad period in history that encompasses the rise of capitalism, science and technology. Each new expression of these forces represented a challenge to a traditional and relatively settled way of life. The traditional authority of the Christian church and the legitimacy of political power were challenged. It was a struggle between the ancients and the moderns (Hollinger, 1994). Within modernity, the modern state emerged with a more efficient (sometimes more ruthless) exercise of political power (Sim, 1998). The *Zeitgeist* – referring to “the dominant spirit or mentality of a particular era” (Jordaan & Jordaan, 1998, p. 62) – of modernity was a belief in the autonomous individual who should be empowered to perfect his or her individuality. According to Hollinger (1994, p. 40) "modernism is the entire culture of modernity".

[2] In empirical research (based on the philosophy of empiricism described below) facts can only be accepted as true if evidence is corroborated through sensory experiences. Knowledge thus needs to be observed and then measured with some kind of mechanism. In order to achieve this it is necessary for researchers to interact with the world and have an instrument with which to measure their observations so that findings can be verified by other researchers (Dyer, 1995; Giere, 1985).

[3] Empiricism holds that the source of all knowledge is found in experience. Therefore observation (above ideas or essences) and measurement are given the key roles in inquiry (Reese, 1980; Trochim, 2001). Empiricism is characterised by the expression *nihil in intellectu nisi prius in sensu* – nothing in the intellect that was not previously in the senses (Blackburn, 1994). Logical empiricist philosophy advocated finding rules that would advance knowledge, similar to those rules used in the natural sciences. The assumptions of the ‘received view’ outlined above is, according to Gergen (1994, p. 7), “a view that continues to the present to furnish the rationale for psychological research, hope for its future, and existential sustenance to scientists wishing to leave their imprint on the future”. Empiricists make a distinction between facts and theories. Facts are part of the empirical world; they are observable and uncontaminated by theories or ideas. As theories belong to the 'soft' world they can contain values, dreams, imagination and misconceptions. Theories must thus be tested against the hard empirical facts of reality. Researchers are burdened with improving any measures of human behaviour until they gets an accurate picture of a person that is not contaminated by speculation or any other soft images (Neuman, 2000).

- the emphasis on hypothesis testing and factual confirmation of theory, or positivism[4]
- the isolation of parts of a system to ascribe causality to theoretical elements at a certain level of description, or reductionism[5].

These virtues mirror those held by the physical sciences at the time. Hesse (1980) summarised the language and philosophy of natural science as follows:

- experience is objective, testable and independent of theoretical explanation
- theories are artificial constructions or models that are framed to provide hypothetico-deductive explanations (see footnote 7): *if* external nature is like this, *then* data and experience would reflect this
- law-like relations affirmed by experience are external both to the objects being correlated and to the investigator
- the language of science is exact, formalisable and literal; problems of meaning occur only when applying universal categories to particular cases
- meanings are separate to facts.

Once the natural world had been successfully described using scientific study, the examination of the human and social world began (Polkinghorne, 1983). As described in Denzin and Lincoln (1994), John Stuart Mill (1843-1906) was the first person to urge social scientists to imitate the ways of the natural scientists. He promised that there would be rapid maturation of the social fields and emancipation from

[4] Positivism is based on the empiricist thinking outlined above. The term was first used by Henri, comte de Saint Simon to designate scientific method and its extension to philosophy. It was adopted by Auguste Comte to signify a great philosophical movement which became powerful in the Western world from the second half of the nineteenth century and into the first decades of the twentieth (Edwards, 1967). According to positivists, science is the only valid knowledge and facts the only possible objects of knowledge. Philosophy does not possess a method different from science and its task is to find general principles common to all the sciences. These principles are to be used as guides to human conduct and as the basis of social organisation. Positivism rejects any procedure of investigation that cannot be reduced to scientific method (Edwards, 1967). According to Blackburn (1994), positivism holds that "the highest form of knowledge is the description of sensory phenomena" (p. 294). Positivism confines itself to what is positively given, avoiding speculation. Positivists aspire to objective truth (Eriksson, 1997). Halfpenny (1982) defined at least 12 different types of positivism. The two types of positivism defined for purposes of illumination in this study are empirical and logical positivism. From the above descriptions it then follows that empirical positivism is the scientific description of sensory observation. It views science as objective, value-free, emphasises the independence of researcher and subject, and seeks universal truth, and its findings can be replicated (Peplau & Conrad, 1989). Logical positivism's contentions that there is an external world independent of human experience and that objective knowledge about this world is obtained through sensory experience is embedded in the framework of the experimental scientific method. The criteria that should be met by an experiment are the following (Fishman, 1991) (1) an experiment arises from psychological theory in which some of its concepts are linked to operational variables (2) an experiment tests a hypothesis or hypotheses that are derived logically within the experimental situation (3) an experiment must control the variables that could interfere with the results (4) an experiment must be replicated with similar results and (5) the results of an experiment must be generalisable to a variety of situations so that the general psychological laws that are implied in the hypotheses can be verified or falsified. According to positivism, social science is "an organized method for combining deductive logic with precise empirical observations of individual behaviour in order to discover and confirm a set of probabilistic causal laws that can be used to predict general patterns of human activity" (Neuman, 2000, p. 66).

[5] Reductionism has been defined by Reese (1980, p. 483) as "the attempt to reduce one science to another by demonstrating that the key terms of the one are definable in the language of the other, and that the conclusions of the one are derivable from the propositions of the other". Some claim that psychology is reducible to physiology. Harmon (1989) referred to reduction as the same phenomenon being explained at different levels of abstraction. Therefore a researcher and a practitioner could look at a problem such as depression from different perspectives. Neither perspective is wrong, it depends on what your needs are in the situation: developing theory about depression or treating a client for depression. Another way of defining reductionism is that it seeks to understand a system in terms of its parts, "by reducing it to its material, externally observable components" (Bale, 1995, p. 29). This is opposed to holism where systems are studied as functional wholes (Tryon, 1995). Harmon (1989) described experimental research designs as reductionistic as they leave unique individuals "as no more than the sum of the observations or measures that are made by the psychologist" (p. 87). Reductionism in research takes place when the researcher uses data based on individual behaviour and generalises the findings to the macro-level, i.e. a larger group of people such as a social institution. In this way, an individual may be credited for changing race relations when in fact changes in attitudes towards other races are a result of an entire civil rights movement (Neuman, 2000). Reductionism also proposes the separation of the object and the subject when doing research (Hoshmand, 1989).

the limitations placed on these fields by philosophy and theology. Social scientists seized this opportunity and were pioneers in doing so. If they could fulfil Mill's promise by focusing on quantification, they would accrue status and political advantage that would lead to both greater acceptance in the scientific community and more valid knowledge.

The assumptions held by those in the social sciences were developed by logical empiricist philosophers (see footnote 3) (Polkinghorne, 1992; Gergen, 1994). The view of proper scientific action that arose from these assumptions became the 'received view' in the socio-behavioural sciences (Rennie, 1997/8). This view "supplies the methodological underpinnings for most of the contemporary behavioral and social sciences committed to Mill's thesis" (Polkinghorne, 1983, p. 59). The assumptions of the received view are briefly sketched in three points (Gergen, 1994):

- Science should establish general laws that enable us to understand known events and predict unknown events.
- Systematic observation is the way in which scientific knowledge is established[6].
- Scientific research should strive towards understanding, predicting and controlling through continued empirical evaluation of theoretical propositions[7].

According to Gergen, contemporary socio-behavioural science is founded on the positivist-empiricist programme (see footnote 4) (this type of research will further be referred to as 'traditional research'). It was held that the natural and social sciences are similar as they share a 'common logic of justification' and apply systematic observation to accept or reject theories. The notion of a unified science was thus embraced: "there is only one approach to develop sure knowledge and that approach is the same for all subjects of scientific inquiry" (Polkinghorne, 1992, p. 221). The natural science approach gained the upperhand in the debate over using two different approaches: one for studying the natural world and another for studying human phenomena.

As Gergen (1994) further pointed out, the field of psychology committed itself to 'the traditional programme for scientific conduct' perhaps more than other sciences related to it. The belief was held that psychologists could make use of the methods of scientific investigation that had been developed and used with success in the natural sciences (Rennie, 1997/8). Psychology could employ these methods to develop a scientific approach to understanding and predicting human behaviour and experience

[6] Associated with this assumption is the distinction between inductive and deductive scientific activity. If scientists use their observations to develop a general theory, inductive reasoning is used. If scientists use theory to make deductions about individual cases, they are making use of deductive reasoning. Using inductive reasoning for theory generation has been widely challenged and specifically, Popper (cited in Gergen, 1994) argued convincingly that a theory's justification is not in its verification, but in its resistance to falsification. One cannot say all swans are white by continuously observing white swans since the universal statement that all swans are white can be falsified by the discovery of a black swan. Also, it is argued that when identifying observations from which general theories are drawn, a theoretical orientation is already presupposed. Observation is thus 'contaminated' from the start.

[7] The hypothetical-deductive conception of science signifies that on the basis of certain suppositions, hypotheses should be formulated concerning the state of nature that is as yet unknown. On examining the state of nature, one's suppositions can either receive or not receive support. If empirical verification is forthcoming, the validity of the suppositions is increased and the theory it generates can be accepted. The theory could also be adjusted or elaborated on or discarded if negative evidence is accumulated. Science thus undergoes continuous improvement as valid theories are retained or developed and those not in line with the observed facts are rejected (Gergen, 1994).

(Fishman, 1991) and indeed was a leader in doing so, particularly on the American front (Rennie, 1997/8). According to Polkinghorne (1992, p. 223), "[p]sychology had prized itself on taking its place in the American universities as a science among sciences". The fact that psychology turned to science, however, and not to philosophy for its foundation was advantageous from the viewpoint that it was able to emerge as a separate science in the 19th century (Robertson, 1995). Basing itself, however, on scientific principles about the nature of reality resulted in psychology ignoring some critical aspects about human behaviour[8]. This problem was identified at the same time that the positivistic movement took root in the social sciences, and in opposition to positivism, the idealist philosophy was born.

2.2.2 Idealism and its influence on social science research

Even before the beginning of the 20th century philosophers such as Dilthey (1833-1911) argued that using methods from the natural sciences to explore human phenomena was inappropriate (Polkinghorne, 1983; Wachterhauser, 1986; West, 1996). This movement (which has many different versions) is known as idealism (Sciarra, 1999) and developed in the time when it was argued that any phenomena that could not be studied by natural science methods should be excluded from investigation. Conscious experience, for example, was excluded as a subject that psychology could study, as were concepts such as purpose, reason and aspiration. Only data that were publicly observable could be admitted. Internal conditions such as the psyche were studied only through their behavioural manifestations, making methods such as introspection and self-report suspect. All this led to psychology narrowly restricting the subject matter it could examine (Polkinghorne, 1992).

As an alternative, Dilthey distinguished between *Geisteswissenschaften* (a science that could interpret the meanings expressed and acted out by humans) and *Naturwissenschaften* (methods that are appropriate to studying the physical realm). Within psychology, Wundt equated physiological psychology with *Naturwissenschaften* and cultural psychology with *Geisteswissenschaften* (Danziger, 1979). Dilthey and Wundt thus recognised that there were two different worlds - one natural and the other social - and that they needed to be approached in distinct ways. Instead of modelling social scientific research methods on that of the natural sciences, alternative methods would need to be developed. Dilthey suggested that humans should be studied using hermeneutic or interpretive methods[9] to understand

[8] Not all academics embraced a strict modernist approach (cf. Hollinger, 1994; Liu & Liu, 1997; Mourad, 1997). More recently, historians have been cautious to ascribe the methods developed in the social sciences solely to the influence of the natural sciences (Rennie,1997/8). It is, however, not the aim of this study to give a detailed historical perspective of the development of psychology as a science. Only the background relevant to understanding the epistemological grounding of research methodology in the social sciences and the consequent development of teaching this discipline is discussed.

[9] 'Hermeneutics', defined as "the practice of interpreting the meaning of text" (Rennie, 1999, p. 5), is an example of the interpretive methods expounded by Dilthey and Husserl (who was greatly influenced by Dilthey's work). The hermeneutic process allows the researcher to understand a text in terms of its underlying assumptions and put arguments forward for this understanding. Although hermeneutics had its beginnings in interpreting religious texts, especially during the Reformation (Teigas, 1995), it soon turned into a topic for epistemological debates for philosophers such as Dilthey, Husserl, Heidegger and Gadamer (see section 2.3.4).

(*verstehen*[10]) human expressions and actions in terms of their meaning and reasons. These methods were based on the assumption that individual consciousness (and not societal structures) plays the greatest role in human action. Research thus has to be focused on the meanings or subjective interpretations of individuals. Habermas (1971, p. 189) pointed out, however, that "the self-reflection of the natural and cultural sciences only interrupted the victorious march of positivism and did not stop it". Also, the influence of wider social forces was underplayed (Porter, 2002). Nonetheless, some of the specific concepts developed during these times are discussed below.

2.3 Realism, relativism, objectivity, subjectivity and value neutrality

The founding of the social sciences (and specifically psychology) on scientific principles, and at that time specifically on Newtonian science, produced certain ideas about the way in which a researcher should approach what was termed 'objects of inquiry'. As mentioned above, during the time of positivism countermovements such as idealism, arose. Debates ensued about how social knowledge was and should be produced. The role of subjectivity in research was discussed not as something that should be avoided, but as an essential part of the research process. Each of these ideas will be elaborated on below. Later in the chapter critical theory's stance on these concepts will be discussed.

2.3.1 Relativism as opposed to realism

Realism (or as it is sometimes also termed, objectivism) makes a clear distinction between the subject and the object and as Rennie (1997/8, p. 171) stated: "… the legitimacy of objectivism rests precisely with the *assumption* that the subject-object dichotomy is tenable". The idea is that a world of objective reality exists 'out there' - this world is independent of us (the subjects) - that has a determinate nature that can be known by us. The belief that this reality that can be objectively known to us through applying reason is known as the epistemological position of foundationalism (Rennie, 1997/8). Knowledge is attained when the subject accurately mirrors or represents this objective reality (Bernstein, 1983).

In contrast, relativists rejected the positive claims made by realists. They went further by recognising that any concept must be understood "as relative to a specific conceptual scheme, theoretical framework, paradigm, form of life, society, or culture…there is no substantive overarching framework or single metalanguage by which we can rationally adjudicate or univocally evaluate competing claims of alternative paradigms" (Bernstein, 1983, p. 8). A Sophist (wise man) named Protagoras made the first classical statement regarding relativism: 'man is the measure of all things'. Relativism posits that truth is relative to the viewpoint of the judging subject hence the saying 'beauty lies in the eye of the beholder'. A

[10] *Verstehen* originated in the sociology of Max Weber where individuals were placed in the central position of sociological studies (Porter, 2002). *Verstehen* means more than 'understanding' what the author intended with a specific text. It includes the understanding of the author's socio-historical and linguistic context. The personal and societal contexts that surround the author's creation of a text are used to 'recontextualise' the text by placing it back into its context and understanding it there (Terre Blanche & Kelly, 1999). Terre Blanche and Kelly refer to *verstehen* as 'empathic reliving' or more simply 'empathy' "which in general means to imagine and try to understand texts in their context" (p. 125).

person determines his or her own truth (Blackburn, 1994). According to Trochim (2001), relativism holds that different perspectives are incommensurate, in other words we can never understand each other because of our different experiences and cultures. Relativists would thus reject the notion that research methodologies have universal validity and that they are suitable across cultural contexts (Padilla & Lindholm, 1995).

The type of relativism referred to in this section is therefore the modernist definition that 'anything goes', the statement popularised in modern philosophy by Paul Feyerabend (Kołakowski, 1996; Laudan, 1996). Bernstein (1983) described the relativist as follows:

> … his or her essential claim is that there can be no higher appeal than to a given conceptual scheme, language game, set of social practices, or historical epoch. There is a nonreducible plurality of such schemes, paradigms, and practices; there is no substantive overarching framework in which radically different and alternative schemes are commensurable - no universal standards that somehow stand outside of and above these competing alternatives (p. 11-12).

What this position means for social research is that there are no standards that can be used to judge which position is more true than another. All positions are thus held to be equal, for example the researcher's perspective cannot be place in a superior position to the perspectives of the research participants; relations of power are neutralised. Also, no determination can be made about whether or not the research that has been conducted fulfils any criteria of what good research might be. As a proposed alternative to realism, relativism has not been left unscathed by wide-ranged criticism (see for example Nightingale & Cromby, 1999 and Scheurich, 1997). Some attempts have also been made to reconcile realism and relativism (see for example Bernstein, 1983 and Rennie, 1999). A conclusion to this debate will not be presented here, but its implications for this study will be addressed in the final chapter. The position taken in the research conducted for this study will be described in later sections.

2.3.2 Objectivity

Descartes couched the term 'objective' in the language of mathematical physics. Quantifiable data of physical reality are what signifies objective reality. Objective means disinterested, not contaminated by values, interpretations, perspectives or other factors such as psychological ones. Thus perceptions, values, interpretations, perspectives and so on cannot describe objective reality (Hollinger, 1994). Von Foerster (1992) goes so far as to say that "[i]t is the principle of objectivity: The properties of the observer shall not enter the description of his observations" (p. 10), thus rendering knowledge independent of the observer.

It was believed that if nature could be reduced to mathematical terminology and if objective knowledge and truth existed then the only reality was physical reality. This is aptly illustrated by this lengthy, *albeit* relevant description provided by Smith (1990):

> As long as this line of thinking is applied to the observable, physical world in particular, it appears to be quite in order. The physical world does seem to have a certain independence, permanence, and "coerciveness" about it that makes it a solid referent point for judgments about objectivity, truth, and validity. There is clearly little mileage to be made by advancing the claims that the belief that the world is flat has an effect on the actual shape of the earth and that, if two inquirers disagree over the shape of the earth, further open and honest inquiry will not help resolve this dispute (p. 172).

Human choice and freedom were an illusion and human behaviour was predictable and definable by complex mechanics (Polkinghorne, 1992). To generate an objective account of these mechanics, objective rules were needed and were found in method where "[v]alid research was distinguished from invalid research in terms of the extent to which the proper procedures were properly applied" (Smith, 1990, p. 169). Bauman (cited in Smith, 1990) aptly stated that according to the founders of modern social science,

> [s]ocial facts are "things" like all others, i.e. that they exist in their own right as real entities "out there," outside the realm of individual experience. They naturally concluded, first, that one can study social realities without necessarily looking at the process of their social production and, second, that whoever does this study with proper method and diligence will certainly arrive at the same results … they regarded true knowledge as, above all (if not solely), the question of method and of its systematic application (p. 169).

The use of impartial and analytical methods was thus encouraged (Liu & Liu, 1997). Anything outside of facts was referred to as subjective or a result of individual reaction to the world. This subjective reaction could prevent us from discovering objective truth and thus had to be purged from any method(s). Subjective reactions included such things as values, judgements, opinions and emotions (Hollinger, 1994). Thus research methods became synonymous with truth and objectivity.

Modelling itself on the natural sciences, psychological research translated variables into objective measurements, tested hypotheses deduced from theory and employed universal explanations (or laws). This is an understanding of science that is commonly shared by some philosophers of science and is referred to as the hypothetico-deductive model (see footnote 7). In this model, knowledge is advanced through a process of falsification where correct theories stand for truth by way of rejection - on the basis of empirical evidence – of incorrect theories. Scientific research can be described as an objective, logical and empirical activity (Terre Blanche & Durrheim, 1999b). According to Terre Blanche and Durrheim,

> [t]he beauty of this model is that it is a kind of machine. Provided we go on rigorously framing hypotheses derived from theory and subjecting them to empirical test, we are assured of moving closer and closer to the truth. Over time, all false theories will be rejected (p. 4).

They went on to say “although this has been the dominant model of science during the twentieth century, it is now widely accepted that there is more to social science than this”. For example, the humanistic[11] movement accused colleagues aligned to the logical positivist movement of placing methodological correctness before an understanding of human beings. It appeared that psychology defined itself by a particular methodology rather than its subject matter (Polkinghorne, 1992).

Changes in the philosophy of science brought about a change in the philosophy that psychology was based on, loosening its attachment to positivism. Polkinghorne (1992) suggested three reasons for this change:

- The development of cognitive psychology that served to include mental processes as the subject matter of psychology (although cognitive psychologists retained features of logical positivism and natural science methodology).
- The emergence of qualitative methods in the field of developmental psychology (based on the work of Piaget who observed and interacted with his own children).
- The failure of behavioural psychology to discover the universal laws that it believed would explain all human behaviour; also it did not serve the needs of psychotherapists well or solve America's social problems.

According to the Principia Cybernetica Web Dictionary[12] (1993) there is an 'old' definition for objectivity: an observation is considered objective if the characteristics of the observer do not appear in the observation. The 'new' definition is that objectivity is shared subjectivity. It is through this notion of objectivity that Sciarra (1999) argued that objectivity could be attained in research that follows an idealist viewpoint. The new definition probably holds the meaning that comes closest to the viewpoint of critical theory and will be expanded on at a later stage.

2.3.3 Value neutrality

In order to attain the objectivity described above, researchers needed to remain neutral in the research setting by ignoring the influence of values on the position they took in the research process. Values were seen as the result of individual reaction to the objective world. According to Wilkinson (1988, p. 494), "within a positivist epistemology, with its emphasis on objectivity, such values are considered sources of bias and obstacles to determining 'the facts' ". This world was characterised by objective knowledge, independent and absolute truth, the ability to reduce nature to mathematical language and universal reality. An objective account of this world was guided by objective rules or method. As values are subjective interpretations of facts they were to be excluded from any method. Any search for truth was

[11] The humanistic movement organised itself after the early 1960s in America. It developed in reaction to the received view of human inquiry (as described above) insisting on including unique human attributes that differentiate human existence from other life forms and physical objects. Humanistic psychology maintains that it is the subject matter of psychology - the person - that should dictate which methods of inquiry are most suitable and not only what is methodologically correct (Polkinghorne, 1992).

[12] Heinz Von Foerster (1970) formulated these definitions which are included in this web dictionary of cybernetics and systems.

thus to be value free and the searchers were value neutral in their search for the truth (Hollinger, 1994; Mertens, 1998). The personal characteristics and life circumstances of researchers did not affect how they did research (Wilkinson, 1988). Some attempts were made by modernists to reduce values to facts, thereby making them another type of objective element (Hollinger, 1994).

2.3.4 Subjectivism and subjectivity

In reaction to the adaptation of natural science methods to study human existence, approaches such as subjectivism[13] and relativism (see above) developed. These approaches are contained in what Polkinghorne (1992) referred to as the second tradition (the Enlightenment being the first) and can be traced back to an Italian thinker called Vico. Writing at the beginning of the eighteenth century, Vico postulated that, as humans were observers of nature, creators of society, art and self, they were different to inanimate objects and therefore the method by which they were studied should be different. Masses of technical information about humans was not sufficient to improve the human condition; what was required was a deeper understanding of human beings (West, 1996).

Thus, as scepticism of the existence of absolute truth became greater, there came a shift from attempting to establish sure knowledge to carefully describing human experience (Polkinghorne, 1990b). The alternative viewpoint declared that individuals are unique in their contribution towards what it is to be human. Although there may be similarities between individuals or cultures, these similitudes cannot be reduced to an abstract model that ignores the peculiarities. Research methods that were not concerned with capturing an objective truth and that could illustrate the differences between individuals then had to be developed. An example of this is discourse analysis that rejects the use of quantified measures and statistical tests (Liu & Liu, 1997). Thus began the emphasis of subjectivity and consciousness over objectivity (Hollinger, 1994).

Some of the first work in systematising this emphasis probably came from the advocates of the hermeneutic and phenomenological approaches, such as Dilthey and Husserl. They, however, still placed importance on the necessity of objective perception in research by offering an alternative solution to the positivist notion of objectivity. Dilthey proposed that hermeneutics could be used to study meaning (excluded from positivist projects) objectively and empirically and developed approaches to achieve this. Husserl expanded on these ideas from a different perspective, believing firstly that the perceptual basis of positivism places limitations on it as the senses are only one part of perceiving, and secondly that there are ‘psychological influences’ that colour perception such as what we expect or the frame of reference that we take into a situation. Husserl coined the term ‘bracketing’ to refer to the process by which researchers become aware of apparent influences that play a role in their perception and then disregard

[13] From a subjectivist epistemology knower and subject create understandings: "[t]he investigator and the investigated object are assumed to be interactively linked, with the values of the investigator (and of situated 'others') inevitably influencing the inquiry" (Denzin & Lincoln, 1994, p. 110). Findings thus emanate from the interaction between a specific investigator and a specific object or group. Bernstein (1983) described subjectivism in its 'common and mundane sense' as "whatever is 'merely' a matter of personal opinion, taste or bias, and consequently idiosyncratic" (p. 11). Although this might sound reminiscent of the description of relativism (see below) he argued that "[a] relativist need not be a subjectivist, and a subjectivist is not necessarily a relativist" (p. 11). Unlike the subjectivist, the relativist does not necessarily claim subjective constructions in these schemes, paradigms or practices.

these influences. This allows the researcher to examine a phenomenon from all viewpoints and then to describe the essence of a phenomenon based on the things that the different cases have in common. The description is objective as researchers have been able to bracket their influences in order to see reality from other contexts (Rennie, 1999). Although this conception of objectivity surpassed that of the positivists, philosophers such as Heidegger and Gadamer were strongly opposed to it as they did not believe that anyone could be indifferent towards the social, cultural and historical context in which they exist and participate. For example, Heidegger's alternative was to propose that people are not separate from their environments, but part of them.

The humanistic psychology movement initiated specific research programmes to establish a philosophical basis and methods of inquiry that would be appropriate for studying human experience (Polkinghorne, 1992). In their research approach, humanistic psychologists used terms distinct from those traditionally used by American psychologists. Some examples of these opposite terms are: human science in contrast to natural science, soft versus hard sciences, practical versus theoretical knowledge, professional as opposed to academic knowledge. One of the tasks of the humanistic research programmes remained the understanding of any relationship between theoretical knowledge (generated by systematic research) and practical knowledge (generated by professional experience and reflection). Before the implications of these different concepts for teaching research methodology are considered, the post-positivist trend will briefly be discussed.

2.3.5 Post-positivism and its influence on social science research

The types of positivism described in the section above did not remain eternally dominant and a new paradigm in the social sciences, post-positivism, came into being. Some theorists (see Guba & Lincoln, 1994; Lather, 1992) place post-positivism in the same category of paradigms as positivism whereas others (see Reichardt & Rallis, 1994b; Trochim, 2001) describe post-positivism as a definite rejection of all that is positivist. As Reichardt and Rallis pointed out, quantitative research is usually linked to the positivist paradigm, but that this label does not clearly secernate logical positivism from post-positivism. Consequently "this blurring helps perpetuate the myth that logical positivism rather than post-positivism characterizes contemporary quantitative inquiry" (Reichardt & Rallis, 1994b, p. 86). Post-positivism is not linked to positivism in its beliefs; it is named as such as it followed from the positivist paradigm that was pervasive before the Second World War.

According to Cook and Campbell (1979), post-positivists accept that "observations are theory-laden … the construction of sophisticated scientific apparatus and procedures for data presentation usually involve the explicit or implicit acceptance of well-developed scientific theories over … the theories being tested" (p. 24). Thus the kind of objectivity that positivists strive for is not possible as researchers are influenced by their individual social and cultural contexts that play a role in the inquiries that they undertake. There is always an element of bias in research findings as we do not see the world as it really is, but from a certain perspective. This does not mean to say that all post-positivists are relativists: "post-positivism

rejects the relativist idea of the incommensurability of different perspectives, the idea that we can never understand each other because we come from different experiences and cultures" (Trochim, 2001, p. 19).

Critical realism is an accepted form of post-positivism referred to by research methodologists such as Reichardt and Rallis (1994b) and Trochim (2001) and is the basis of the ontological claims made in this study. As critical realism is discussed at greater length in chapter 3 it will merely be mentioned here that critical realists accept that there is a reality independent of our knowledge of it that can systematically be studied by science. Research is thus a search for this reality although it can never be fully known because humans do not have full access to all knowledge about the world (Polkinghorne, 1983). A juxtaposition of as many perspectives on phenomena as possible are encouraged in a post-positivist paradigm, which translates into research techniques such as triangulation where multiple methods are used to attempt to obtain as complete a picture of reality as possible. Also, post-positivists recognise that strict experimental designs adopted from the natural sciences are not always relevant for investigating the human realm and thus adapt their methods to better suit this context (Cook & Campbell, 1979; Trochim, 2001).

2.4 Implications of modernist thinking for the nature of research methodology, methods and the teaching thereof

The viewpoints held by modernists concerning research methodology and methods translated into a specific framework for how research should be conducted and also how it should be taught. The term ‘method’ originated from the same Greek root as ‘mathematics’ which means 'to measure'. The modernist view of methods describes it as context-free and resulting in truth, knowledge and objectivity (Hollinger, 1994). A synonym for methods is techniques. Both these terms refer to the 'tools' used by social scientists, for example, surveys, case studies, experiments and the like (Mouton & Muller, 1998). A distinction needs to be made between methods and methodology. According to the Principia Cybernetica Web Dictionary, methodology is

> [t]he systematic analysis and organization of the rational and experimental principles and processes which must guide a scientific inquiry, or which constitute the structure of the sciences more particularly. Methodology is a generic term exemplified in the specific method of each discipline and its full significance can be understood only by analyzing the structure of each discipline (http://pespmc1.vub.ac.be/ASC/INDEXASC.html).

Methodology is a branch of the philosophy of science that is concerned with methods and techniques of scientific inquiry, the way they are composed and their ability to yield knowledge that is valid. 'Methodology' is often confused with 'methods'. They are related just as biology is related to living organisms or as sociology is related to society. Methods are thus one of the components of methodology.

As its aim, methodology describes and analyses not the objects or the products, but the processes of scientific inquiry. Methodology investigates a technique's potential and limitations so as to reveal its presuppositions and epistemological consequences. It suggests structural reasons for successes and failures, and develops, tests and offers generalisations about scientific procedures. Krippendorff (1986) also added that

> [m]ethodology is the discourse about methods of scientific inquiry and enables decisions on whether, by which data and by which methods, a scientific problem is solvable and when a proposed solution is acceptable as such ... Methodology turns out to be the medium for a paradigm to permeate scientific practice (p. 124).

A discussion of the way in which modernism views methodology and methods follows.

2.4.1 What is the modernist nature of research methodology and methods?

The notions of objectivity and subjectivity proposed by Galileo were modernised by Descartes (Hollinger, 1994). The modernist approach to knowledge and the generation thereof advanced a separation of objectivity and subjectivity. The search was for truth and to understand the true nature of reality (Burr, 1995); method was seen as the road to truth (Hollinger, 1994). Wallston (1981, p. 602) stated that "methods are only tools to try to answer questions. Methods may be more or less appropriate depending on the question". Scientific method was seen as objective; thus researchers could claim truthfulness for their findings in using these methods. If working from a traditional scientific paradigm, experimenters[14] could distance themselves from the object being studied and objectively describe phenomena without contaminating the results with any personal involvement (Burr, 1995). Thus the role of researchers in constructing the research process was understood to be as accurate recorders of the facts of the life-world of the community they were studying, independent of themselves as observers (Gergen & Gergen, 1991; May, 1998). According to de Groot (1969, p. 163)

> an activity or its results may be called 'objective' if, in accordance with the purpose envisaged, the object itself is done full justice – is allowed to speak for itself, as distinct from that which the observer, judge, interpreter, theoretician reads into it 'subjectively'.[15]

If we as social scientists view our research methods as an objective body of knowledge that, if practised 'correctly', will give us accurate results about our subject's life-world, May (1998) argued that we are missing the point. He maintained that observing only the actions of members of a community under social investigation in constructing social reality - including the way in which the social scientists construct their topics of inquiry and conduct their investigations - does not consider the consequences for the

[14] Bhaskar and Lawson (1998) warned against seeing the natural sciences as exclusively experimental in nature. Geology, for example, is a non-experimental natural science and as such could be open to the same types of philosophical arguments currently being advocated in the social sciences.

[15] De Groot (1969) qualifies his meaning of subjectivity as "subjectivity which contaminates the object of study or disturbing subjectivity" (p. 163).

relationship between social science and social life. We may seek to strive for 'objectivity' in the social sciences through this type of reflexivity (termed endogenous reflexivity, see also chapter 3). It is, however, important to note whether our reflexive actions are only revealing something about ourselves as social scientists or if they are actually telling us something about the people we are studying.

Subjectivism and relativism have also been extensively criticised (Bernstein, 1983) especially the idea that if there are no longer any objective truths or universal values that can be pursued, all knowledge and values are then equally valid and relative (Kvale, 1992; Vinden, 1999) and anything is "merely a matter of personal opinion, taste, or bias, and consequently idiosyncratic" (Bernstein, 1983, p. 11). The criticism from objectivists was thus: how could any inferences be made about human behaviour in social inquiry when everything is relative?

According to Polkinghorne (1992), neither the claim of absolute truth nor the claim that all knowledge assertions are equal is acceptable. A choice must be made by students and professionals alike between alternatives; actions must be decided on that influence people's lives. Polkinghorne (1992) stated succinctly that

> [w]e need to learn how to make judgments without being able to depend on the surety of our knowledge. We need to develop pragmatic procedures for developing knowledge claims and providing psychological services "in-between" certainty and relativism (p. 235).

Rejecting traditional science implies the demise of the quantitative methods developed in this framework. If these methods are rejected, an alternative to studying human psychological processes needs to be put in place and the call to reject science - and therefore to declare psychology not a science – has been made by some (Vinden, 1999). Traditional scientists have labelled the alternative to traditional science and its methods, qualitative research as 'soft'. How can we move away from the modernist ideas of objectivism versus subjectivism and theory versus practice, particularly in the research situation? As asked by Gergen and Gergen (1991, p. 77):

> Are we to dismantle the scientific apparatus, declaring all attempts at 'objective', 'authoritative' knowledge to be fatuous? Are we to conclude that because we are locked into our subjectivities we cannot even be certain that there is a 'world out there', or that we are truly communicating with other persons?

The aim of this study is not to answer these questions, but to describe how these debates have filtered through to the research methodology curricula that were examined in the current research. Shifts in the epistemological basis of inquiry into human experience and behaviour that have been alluded to in previous sections of this chapter will be discussed in section 5 where so-called 'alternative paradigms' are detailed.

2.4.2 What does this mean for teaching research methodology?

The way in which we do research is dependent on our way of knowing or epistemology (Hoshmand, 1989; Mertens, 1998). Furthermore Brew (2003) argued that there is a link between an academic's concept of research and what and how we teach our students about research. Chin and Russo (1997, p. 105) emphasised that

> [w]hen designing and conducting research, developing lesson plans for our courses, or carrying out other professional activities, we must reflect on how our values and perspectives influence our understanding and thinking and how our views may differ from those of others.

Kincheloe and McLaren (2000) attribute the origin and nature of our beliefs to discursive practices (implicit linguistic practices that control our speech and behaviour):

> [i]n an educational context, …, legitimated discourses of power insidiously tell educators what books may be read by students, what instructional methods may be utilized, and what belief systems and views of success may be taught (p. 284).

Extrapolating this idea to the topic of this research, it could be suggested that one paradigm (and the research methods it uses) is chosen over others and students are taught that this is the 'correct' way of thinking. One such message may be that research is a step-by-step procedure to problem-solving and that parts of a whole need to be manipulated in order to understand a particular object (Torre, 1995, describes this as analytic, linear and rational). If students are taught that the research process begins with the formulation of a problem and ends with some type of feedback about the discoveries of the investigation, with specific steps in-between, then they could be left with the perception that research is conducted as illustrated in figure 1:

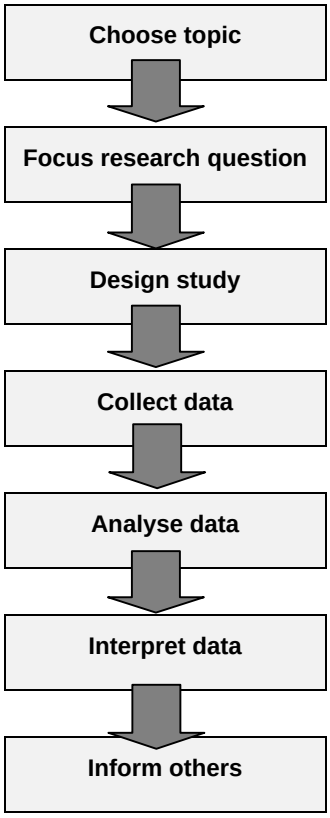

Figure 1 A linear view of the research process

Some of the books we use to teach research methodology set out research in this manner (see chapter 5 for a brief discussion of this). This denies the dynamic interaction between the components in the research process: "…the very nature of a system is immanent in the combined interaction of the system as a whole, and hence, the system's true character is lost from view when its distinguishable components are investigated independently of each other" (Bale, 1995, p. 31).

Research methodology as an academic discipline is often limited to modernist assumptions (Hoshmand, 1989; Popkewitz, 1990) that see the world as linear and rational. Quantitative methods are seen as being able to map universal and objective overarching truths. The researcher aims to discover this reality (Mertens, 1998). In contrast, qualitative methods map the context through, for example, language that is a constructed medium of communication and thus relative to the historical period it was developed in. Such methods are therefore subjective. Feminists have even gone so far as to recommend "greater reliance on qualitative data techniques as a way to correct the biases of traditional quantitative methods" (Peplau & Conrad, 1989, p. 387). Patton (1996) cited Cook's pronouncement at the 1995 International Evaluation Conference that "[q]ualitative researchers have won the qualitative-quantitative debate" (p. xviii). Qualitative methods have 'won' in the sense that they have been accepted and gained equal respectability with quantitative methods, "but the victory has been won on its merits, on the basis of grounded theoretical insights and significant intellectual contributions" (Patton, 1996, p. xviii). Kelly (1999) and Polkinghorne (1992) agreed that qualitative research has achieved validity in the social

sciences. They also stated that academic journals have become more accepting towards research based on a qualitative approach and the status awarded to qualitative researchers has encouraged a vast number of publications in this field.

This is part of the age-old debate over objectivity versus subjectivity (see Bernstein, 1983), positivism versus relativism (see Laudan, 1996) and quantitative versus qualitative (see Fiedeldey-Van Dijk, 1997; Reichardt & Rallis, 1994a who summarised and added to some of the issues concerned). That there still is a debate is contested by academics such as Newman and Benz (1998). Patton (1996), for example, said that the once 'great paradigms debate' (quantitative versus qualitative) has "run out of intellectual steam and is now relegated to comedy on the Internet" (xviii). He related the following story sent to him by a former student who had received it via e-mail:

> Once upon a time, not so very long ago, a group of statisticians and a group of qualitative researchers found themselves together on a train traveling to the same professional meeting. The quals, all of whom had tickets, observed that the quants had only one ticket for their whole group.
>
> "How can you all travel on one ticket?" asked a qual.
>
> "We have our methods," replied a quant.
>
> Later, when the conductor came to punch tickets, all the quants slipped quickly behind the door of the toilet. When the conductor knocked on the door, the head quant slipped their one ticket under the door, thoroughly fooling the conductor.
>
> On their return from the conference, the two groups again found themselves on the same train. The qualitative researchers, having learned from the quants, had schemed to share a single ticket. They were chagrined, therefore, to learn that, this time, the statisticians had boarded with no tickets.
>
> "We know how you traveled together with one ticket," revealed a qual, "but how can you possibly get away with no tickets?"
>
> "We have new methods," replied a quant.
>
> Later, when the conductor approached, all the quals crowded into the toilet. The head statistician followed them and knocked authoritatively on the toilet door. The quals slipped their one and only ticket under the door. The head quant took the ticket and joined the other quants in a different toilet. The quals were subsequently discovered without tickets, publicly humiliated, and tossed off the train at the next stop (Patton, 1996, p. xvii).

Although Patton is of the opinion that the quantitative-qualitative debate has been diluted, a number of research methodology courses still maintain the separation between quantitative or qualitative methods. For example, Tashakkorri and Teddlie (2003) published an article about research courses in the US describing them as "either qualitative or quantitative" (p. 61). They furthermore reported that "graduate students are often encouraged to choose a 'track' early on in their education". Alternatively, when quantitative and qualitative approaches are taught in one course they are presented as separate entities that have no relationship with each other. Teaching (and consequently learning) a curriculum that separates each method according to quantitative (objective) or qualitative (subjective) research is

perpetuated by the way in which textbooks are presented. Some texts aimed at under-graduate courses have, however, moved away from this separation (e.g. see Neuman, 2000). One of the questions that will be asked in this study pertains to how the quantitative/qualitative divide has been transformed, ignored or is still maintained in the teaching of under-graduate research courses.

Accounts written by psychologists also contribute towards the upholding of the type of objectivity that is fundamental in the traditional view of psychology as a science, as Squire's (1990) study on the passive language of psychological reports found. The researcher is 'absent' from the process as described by the language of the report: 'an experiment was performed' or 'subjects were exposed to stimulus material'. Researchers thus separate themselves from that which is researched. This approach is illustrated in figure 2 below:

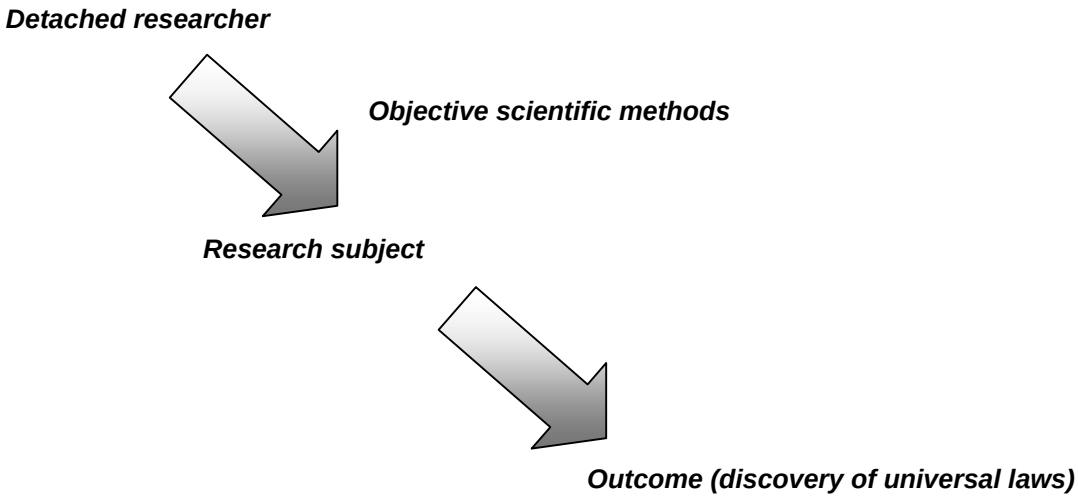

Figure 2 The involvement of the researcher in the traditional research paradigm

Wilkinson (1988) viewed the involvement of the researcher as follows: "[i]n the positivist research paradigm, the relationship between researcher and researched is an impersonal one: involving 'prediction' and 'control' by the former of the latter" (p. 495). The detached researcher uses objective scientific methods to observe a subject and through this observation discovers universal laws. Students are taught how to master these objective scientific methods in order to do objective scientific research. Brew (2003) established the link between this approach and the way in which teaching takes place when she argued that

> If knowledge which is generated through research is viewed as objective and separate from knowers, it would seem consistent to think that it requires transmission and absorption through a separately conceptualised teaching process (p. 9).

Teaching and research are thus not integrated in the curriculum. Brew advocated the norm that this should be the case and elaborated on new ways of achieving this. This will be discussed in the final

chapter. More will be said about the relationship between teaching and research in the second part of this chapter. The section that follows examines alternative paradigms and the implications for teaching from these worldviews.

2.5 *Alternative voices to traditional social scientific research: implications for the nature of research methodology, methods and the teaching thereof*

According to Terre Blanche and Durrheim (1999b), professing that social sciences research can be limited to only one paradigm results in a methodolatory[16] position. The researcher focuses on technical issues that emphasise accurate measurement and correct research design while ignoring the context in which this knowledge is formed. Terre Blanche and Durrheim thus stated that

> … we take the view that the hypothetico-deductive model, and the various technologies of knowledge production that flow from it, are useful tools for the social science researcher, and that it is worth the effort to learn how to use them properly. However, to be more than mere technicians, social science researchers also need to have a good grasp of the wider social and political forces that continually produce new knowledge of all kinds (p. 5).

Some alternative voices to positivism, such as idealism and its approach to research, were discussed in the first part of this chapter. In this section a comparison is made of specific paradigms, namely naturalistic-ethnographic, phenomenological and cybernetic[17], according to Denzin and Lincoln's (1994) ontological, epistemological and methodological questions. These specific paradigms were chosen to give the reader a broad overview of possible alternatives to positivism that might be adhered to in under-graduate research methodology courses. Thereafter, another alternative approach, post-modernism, is briefly described because of its unique contribution to debates on knowledge production. Before discussing some alternate paradigms and their application to the research context, their characteristics will be listed.

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[16] Danziger (1986) coined the term methodolatory to mean that some researchers apply rules of method by focusing exclusively on "technical issues such as accurate measurement and proper research design with no concern for the wider context within which knowledge is produced" (Terre Blanche & Durrheim, 1999b, p. 5). One aspect that alternative paradigms have in common is that "[a]ny inquiry process should begin with a purpose and with locating a setting in which the purpose is available to be observed or accomplished" (Green & Chandler, 1990, p. 204) before moving into other contexts.

[17] The term cybernetics was coined by Norbert Wiener (Bale, 1995); its principles were first established in mathematics, communication theory and information theory. Cybernetics offered a more solid theoretical foundation for systems theory where concepts such as negative and positive feedback and circular causal systems were developed. The difference between general systems theory and cybernetics lies in their perspective on holism. Whereas general systems theory is committed to holism, cybernetics is committed to an epistemological perspective where material wholes are analysable without loss (in terms of a set of components plus their organisation). Organisation is described as the way in which components of a system interact with one another, and how this interaction determines and changes its structure. It explains the difference between parts and wholes without referring to their material forms. Due to its disinterest in material implications, cybernetics separates itself from all sciences that are divided into empirical domains by subject matters such as physics, biology, sociology, engineering and general systems theory. Focusing on organisation, pattern and communication, cybernetics has generated methodologies, a logic, laws, theories and insights that are unique to cybernetics, but that have wide-ranging implications in other fields of inquiry (Principia Cybernetica Web Dictionary, 1993). Cybernetics focuses on communication and control *in* the system and not *of* the system as is mistakenly implied in some cases. Circular causal feedback mechanisms and how these concepts are applied in a system formed part of the early work in this field (Steier, 1995).

2.5.1 Characteristics of alternate paradigms[18]

Alternate paradigms are characterised by (Hoshmand, 1989):

- a personal and passionate commitment by the researcher to discover the meaning and essence of human experience; inquiry is a personal and social process
- an emphasis on description and discovery versus only theory testing and verification
- an open, reflexive (sometimes atheoretical) attitude
- an emphasis on the researcher as an instrument
- the researcher in participative and dialogical interaction with the subject
- subjects being treated as a co-investigator where they are consulted by the researcher in a relationship of collaboration and reciprocity
- the research not being controlled by the researcher only
- the research process as being 'organic and emergent' where unplanned events can change the course of decisions.

These descriptions are commensurate with the interpretive paradigm as the researcher is interacting with people in a naturalistic setting to determine the way in which these people subjectively experience their life-world. In this case, the researcher is the instrument for collecting data and requires specific skills (listening, looking, questioning, interpreting), which are not easy to master; this requires that the researcher undergo some personal change in order to 'become' an interpretive researcher (Terre Blanche & Kelly, 1999). In contrast, Terre Blanche and Kelly (1999) asserted that the positivist researcher simply follows instructions relying on the verified assessment instruments and statistical techniques that they have at their disposal to collect data.

2.5.2 A structure for describing paradigms

Denzin and Lincoln (1994) provide a structure of three fundamental questions that describe what a paradigm entails and what falls within and outside of its limits of legitimate inquiry. This structure can be put to each of the paradigms outlined below:

- The *ontological* question. What is the form and nature of reality? What can be known about reality?
- The *epistemological* question. What is the relationship between the knower and what can be known?
- The *methodological* question. How can the knower (inquirer) find out whatever he or she believes can be known?

Additional to these three questions, table 1 contains information on other aspects of the three paradigms chosen which the researcher found appropriate to this discussion. A brief outline of and comparison between the three alternate research paradigms (adapted from Hoshmand, 1989) is presented in the

[18] I would not like to insinuate that alternate paradigms are free from focusing on the technicalities of research and thus also become guilty of taking a methodolatory position. This debate is, however, expanded on in chapter 4.

table. Each paradigm answers the ontological question under 'assumptions', the epistemological question under 'emphasis' and 'context of data collection', and the methodological question under 'data'. The remaining descriptors, namely aim, data collection techniques, data analysis, useful applications, strengths and limitations, serve to further describe each paradigm's approach to research. These paradigms are: naturalistic-ethnographic, phenomenological and cybernetic.[19]

[19] This refers to second-order cybernetics. The development from first-order (the term for the initial formulation of cybernetic concepts as described above) to second-order cybernetics brought about a change in the role of the researcher in the research context. First-order cybernetics is concerned with circular causal processes, e.g., control, negative feedback, computing, adaptation (Principia cybernetica web dictionary, 1993). In studying systems, a first order cybernetician assumed that the system could be observed separately from the observer (Sluzki, 1985), i.e. the observer's involvement in the observation did not influence its results. In his paper 'Cybernetics of Cybernetics', Mead (as cited in Steier, 1995) called for cybernetic understanding to develop a new 'language' to transcend disciplines and allow for cyberneticians to examine their organisation in itself. In second-order cybernetics (or the cybernetics of cybernetics) the principles of cybernetics are applied to the understanding and language of cybernetics itself (Steier, 1991). The focus thus shifts from observing a system to the inclusion of and focus on the observer. It emphasises that the observer is inseparable from what he or she is observing (Atkinson & Heath, 1987), i.e. the observer plays a role in constructing the reality that is observed (Sluzki, 1985). The concern with observing circular feedback mechanisms and mutual relationships include the observing process and how our observations are realised. With the acknowledgement of our role in the observation process comes a responsibility for our observations, descriptions and explanations. We need to recognise the context of mutually defining relationships that punctuate our knowing activities; how the observer punctuates and develops a system of knowing and acting is important (Steier, 1995).

Table 1 A contrast of alternate research paradigms

	Naturalistic-ethnographic paradigm	***Phenomenological paradigm***	***Cybernetic paradigm***
Ontology	Social reality is created by participants in a particular social context; it is a construction based on the 'actor's' frame of reference	Reality has many different perspectives. Consciousness is complex and always changing. It is lived together with experience	A system is not definable by exact measure, but by the interaction between variables engaged in constant interaction. Thus the understanding of human behaviour cannot be measured and represented by one fixed value
Emphasis	The worldview and constructs of participants in research as they are expressed during the interactions between the researcher and the participant	*Verstehen* (understanding) of another person's experience through the lived world of individuals and the structure of consciousness	Interaction between and interdependency of a part of a system to the whole system and between all the parts of the system. Much emphasis is placed on the context in which interaction takes place
Aim	To holistically describe total phenomena in context, to describe complex relationships of factors that influence behaviour about phenomena	To describe the meanings of human experience, and to illuminate these meanings as they form part of human consciousness	To discover and know patterns that organise events
Epistemology	Behaviour is studied in its natural context as the setting is important in the meanings of constructions. The participant's point of view is preserved by seeking emic (or native) perspectives	The researcher is a 'participant-observer' with an open attitude towards the subject being researcher; pre-conceptions and biases (called bracketing) are suspended. All perspectives are treated with equal value; information is not placed on a hierarchy. The researcher is the co-creator of the information generated through interviewing	The researcher is included as part of the research process, the researcher co-influences the method, and the method co-influences the researcher. Research instruments do not remain static as participants may change over time. The larger context in which the research takes place must be taken into consideration. A process-in-context approach allows the researcher to look for criteria that indicate certain processes taking place in specific contexts
Methodological focus	Intersubjectively shared experiences, personal meanings and perceptions of actors and participants	Primarily linguistic focus	Detailed documentation of the contributions of the research and all participants including the influence they have on each other

… / continued

	Naturalistic-ethnographic paradigm	***Phenomenological paradigm***	***Cybernetic paradigm***
Data gathering techniques	Archival research, ethnographic observation, oral history, qualitative interviews and so forth	Primarily qualitative interviews	Action research where plans are changed in the context in which they are implemented. Intensive observation of interactions from an observer and participant perspective is one of the methods that might be employed
Data analysis	Data is transcribed verbatim. It is then repeatedly read to identify key phrases and constructs. These meaning categories are collected into themes. The interpretations can be shared with participants to verify analysis	The researcher examines the data from different perspectives, for example, by asking questions of the data. Analysis can be done in a hermeneutic circle by examining the meaning of the different parts in relation to the meaning of the whole to determine any change in the original interpretation. This process is repeated back and forth until a pattern can be established	A commonality is sought by focusing on any similarities that may occur within and across participants. Model building and theory testing is preceded by observation and discovery
Useful applications	Addressing questions related to native experiences of unfamiliar groups especially ones from difference cultural backgrounds. Less researched populations	Especially useful in describing and understanding important human qualities and experiences of participants	Especially useful in counselling and therapy where change in a client needs to be anchored in specific events. The process-in-context approach allows for the identification of such events through research
Strengths	Descriptive poser, richness of data, access to 'deep structure' as opposed to surface meanings	The researcher's intentional aim for doing research is given attention, i.e. the perceptual and cognitive process of the researcher is made explicit	Studying humans in context including the researcher's role in the inquiry event. Making the structure of research explicit by accurate description
Limitations	Difficult to replicate due to uniqueness of style of research and context at the time of research. Potential threats to reliability and validity exist in the way that participants are selected and events are sampled. Data analysis is possibly subjective	Questions arise concerning the validity of the approach, the possibility of leading questions, the subjectivity of interpretations, the small number of subjects and possibility of the researcher influencing the data generated	Can be criticised as reductionistic in that data is anchored in a specific behavioural event

2.5.3 The post-modern turn

Post-modernism originated in art, architecture, literature and cultural studies. It questions and rejects the basic assumptions of modernism, creating much argument and debate about the existence of both movements (Burr, 1995). Post-modernism rejects:

- the idea that there is an ultimate truth that can be discovered. "Almost all postmodernists reject truth as even a goal or ideal because it is the very epitome of modernity… Truth makes reference to order, rules, and values; depends on logic, rationality and reason, all of which the postmodernists question" (Rosenau, 1992, p. 77)
- the idea that this one universal truth defines an independent reality
- that a 'grand' theory can be applied to discover and change underlying structures of social life.

Philosophers such as Heidegger, Nietzsche, Sartre and Wittgenstein influenced post-modern ideas in the humanities. Current streams of post-modern thought aim to demystify the social world, but empirical systematic observations and generalisable knowledge are distrusted: "[t]he modernist search for natural laws and unified theory using impartial methods is undermined by the postmodernist critique that reality is socially constructed" (Lui & Lui, 1997, p. 159). A researcher's description of a phenomenon is no more valid than anyone else's description of a life event. Research results are not presented in a detached or neutral way; the researcher's presence is made known throughout a report. Post-modernism is anti-elitist and postmodernists "oppose those who use positivist science to reinforce power relations and bureaucratic forms of control over people" (Neuman, 1997, p. 82).

Post-modern thinking has fundamentally challenged the prevailing modernist paradigms of objectivism and subjectivism. While objectivism claims that there is "a world of objective reality that exists independently of us and that has a determinate nature or essence that we can know" (Bernstein, 1983, p. 9), subjectivism claims that "there is a self-contained, individuated self who can know the one truth" (Masterpasqua & Perna, 1997, p. 6). Post-modern thinking, in contrast, asserts that "persons exist in a state of continuous construction and reconstruction; it is a world where anything goes that can be negotiated" (Gergen, 1991, p. 7). An infinity and multiplicity of demands are made on the individual while living in a time of unpredictability and uncertainty (Masterpasqua & Perna, 1997). As the social sciences arose in the context of modernity, its concepts and approaches are no longer relevant and need to be changed (Hollinger, 1994).

In order to understand the post-modern individual, it is necessary to go in search of new models that view systems as evolving dynamically and as being in continuous interaction with their contexts. There are various paradigms that undercut traditional approaches to understanding the world and that view individuals in the light of the two aspects mentioned in the previous sentence. Writers about paradigms have different ways in which they classify or name ways of knowing and their consequent methods of inquiry. Jürgen Habermas - who Schubert (1986) claimed “is one of the most widely cited contemporary philosophers who deals with the theory of knowledge and it cultural implications” (p. 180) - classified

paradigms as empirical-analytic, hermeneutic or critical (this classification will be elaborated on in chapter 3). Two texts aimed at research courses teach students that approaches can be classified as positivist, interpretivist or critical, based on the re-evaluation of social sciences since the 1960s (Neuman, 2000), and positivist, interpretive or constructionist (Terre Blanche & Durrheim, 1999a). The next section will review how alternative paradigms have informed the teaching of research methodology.

2.5.4 What is the alternative view on research methodology and methods and the teaching thereof?

If it is accepted that the research process is non-linear and interdependent[20] by nature, the process can be illustrated in figure 3 as the following (see also Jordaan & Jordaan (1998) who termed this conceptualisation of the research process 'an evolving spiral of knowledge acquisition'):

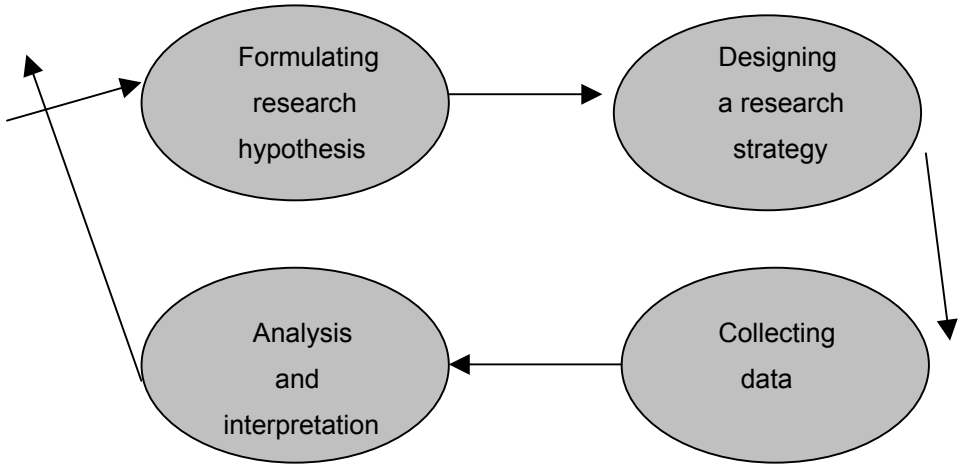

Figure 3 The deductive empirical cycle in the scientific expansion of knowledge (Welman & Kruger, 1999)

Thus, the illustration of a recursive research process in figure 3 shows the beginning of a research project where a research problem is identified. The measures needed to address the problem are followed (although not necessarily in a specific sequence each time). The researcher then returns to the original problem to identify if any further work needs to be done: the arrow flowing out from the analysis and interpretation shows that the process does not end there. In figure 3 output from one of the steps in the research process can become input in other steps, for example, you state the focus of the research project and then while you are collecting data you realise your sample is not representative. Your aims in

[20] Non-linear refers to the fact that the events do not take place in a straight line. Goerner (1995, p. 22) stated that "the nonlinear revolution creates a very non-Newtonian image of the world". Linearity is an assumption that underlies traditional approaches to understanding our world. In this worldview it is believed that the size of the input determines the size of the output (West, 1997). Keeney (1983) stated that a 'more is better' policy has had disastrous effects in a variety of geophysical, biological, and economic domains. Non-linearity, in contrast, is based on proportionality. A non-linear system is any system where the input is not directly proportional to the output. In other words, if *x* increases is does not mean a predictable increase or decrease in *y*. If something works well it does not necessarily mean that more of it should be implemented and vice versa. Traditional worldviews assumed that "[f]or a linear system containing many factors the total response of the system is proportional to the sum of the individual responses of each of the separate factors" (West, 1997, p. 106), thus assuming a system to be independent. The concept of interdependence also, however, has a role to play. Interdependence "means mutual reliance and signifies that change in one component brings about change in others" (Banathy, 1992, p. 188). The non-linear revolution explores the nature of non-linear interdependency.

terms of the generalisation of your results will have to be revised. The process in also interdependent as a change in the representativeness of your sample may change the project as a whole, which impacts on the initial aims of the research. This interdependence is not necessarily linear though: a big sample does not ensure better results than a smaller but more representative one.

The move towards accepting non-linear alternate research methods[21] in doing and teaching research has been documented by authors such as Hoshmand (1989). This move coincided with paradigm shifts in the social sciences combined with concerns about the discipline of psychology. Many of the problems with traditional psychology where positivism and reductionism are strongly represented have been addressed and rectified. More than a decade ago the *American Psychologist* contained an article by Sperry (1988) that suggested reform in the science of psychology. Borgen (1989) thus stated that "[t]o me this is prima facie evidence that to imply that psychology is pervasively positivistic, deterministic, and reductionistic is to create a straw argument" (p. 94). More recently, however, authors such as Willig (1999) still maintain that psychology is based on reductionist techniques for understanding and explaining human behaviour. The failure of psychology to adequately move in the direction of alternate paradigms and methods can be seen as a rejection of these alternatives *per se*. This is reflected in the lack of their inclusion in the teaching of research methodology (Hoshmand, 1989).

The importance of considering alternate research paradigms when teaching research methodology is emphasised by Bozalek and Sunde (1993/4, p. 79): "[t]he purpose of exposing students to differing approaches is to lead them to the consciousness that knowledge production and legitimation are historically structured and situated". Certain socio-historical contexts thus lead to the development of particular ways of viewing and researching the social world. Mouton and Muller (1997) argued that qualitative approaches such as naturalistic evaluation were taken up by NGOs and other grantmakers in South Africa, in keeping with international developments on the production of knowledge, to structure funding decisions. Although no specific issues are offered, they also suggested that alternate methodologies became popular due to difficulties experienced in the closing period of the Apartheid era. These authors also point to the paradox that is contained in the movement to 'new methodologies': "a too-ready willingness to take over ideas and practices now made much easier by the new networks may replicate, however unintentionally, global relations of dominance" (Mouton & Muller, 1997, p. 16). Yet the literature that is cited below does not confirm that the unquestioning acceptance of alternate paradigms implies abandoning established methods. There may be different rewards for different groups of people in the new dispensation, but the argument below is for an open attitude towards all methods.

A third view on methodology, in psychology in particular, is for qualitative research to augment quantitative research in a paradigm of diversity (Polkinghorne, 1991). This approach, which is still under discussion in the current literature, is referred to as mixed methods research following Tashakkori and Teddlie's (2003, p. 62) definition as "the type of research in which a qualitative and quantitative data collection procedure … or research method … is used to answer the research questions". It can be

[21] The linking of the words 'non-linear' and 'alternate' is not to suggest to the reader that teaching alternate paradigms automatically means that the approach would be non-linear. Once again, Porter's (2002) idea of tendencies is used to argue that learning about alternate paradigms would potentially result in learning in about research as a non-linear process.

argued, however, that this is a new type of hegemony which can be termed 'pluralism' and which is advocated to satisfy different socio-political needs. Be that as it may, the researcher needs to take a position of some sort for this study (which may be based on her own socio-political interests).

As was mentioned above, teaching of alternate paradigms does not imply that traditional more established methods should be excluded. Lui and Lui (1997) stated that

> [f]rom every paradigm we reject the contention that some aspects of human thought, action, feeling, or society are the proper topics of study in psychology and others not. From every paradigm we reject the argument that one method is uniquely capable of gleaning insight into the human condition (p. 175).

Researchers using alternate paradigms may not insist on subjectivism "nor is there a total rejection of the traditional standards of knowledge claims; only that concepts of validity are expanded to include additional criteria consistent with the epistemic values of the alternate paradigms" (Hoshmand, 1989, p. 39). Students could thus be taught that there are alternate paradigms to the traditional ones and the importance of the role of the researcher as co-constructor of the knowledge generated is emphasised. Power relations in research are addressed as different from traditional research. In their research reports feminist researchers will, for example, acknowledge their subjective response to the research process by providing some comment of their role therein. Contrary to the traditional convention of using the third person when writing, feminist researchers will make comments such as '*I* observed this' or 'in *my* analysis' to explicitly admit their role in studying the phenomenon (Eagle, Hayes & Sibanda, 1999). This is, however, just one conceptualisation of alternative paradigms that not all researchers may agree with. Post-modernists, Marxists and feminists, for example, may argue that none of the traditional conventions for doing research apply to them (Sarantakos, 2000) and thus reject all of the above. Due to lack of space this idealisation of alternate paradigms is the only one presented. The point that is being made is that each researcher (consciously or unconsciously) selects a paradigm and that the characteristics of this paradigm have specific implications for the way in which research methodology is taught to under-graduate social science students. Certain assumptions that can be related back to these paradigms are thus manifested in the curriculum (Brew, 2003).

2.5.5 From which paradigm should we teach?

Given the contention that different viewpoints about researching human behaviour manifest in differences between curricula, one may ask if one particular paradigm is better than another. This question also has a corollary; will training in one paradigm or another deliver better researchers? Or should training in both paradigms be the norm? Or should students be trained in an entirely new approach such a post-modernism? What would a post-modern methodology look like if there are no rules to such an approach? Some thoughts on these questions are presented in this section, although the issue is addressed more fully in the last chapter.

Banathy (1992) warned that changes in current paradigms are not just necessary, but essential to the future success of societies in her statement that

> Societal systems, such as our educational activity systems, that still operate based on the design of the bygone era, and use the world view lens of the industrial machine age, are losing their viability. They operate in a continuous crisis mode, and eventually face termination unless they frame a new mind set, learn to use the new lens of the new era, and acquire new thinking that is based on the new world view (p. 4).

It is argued here though that following a 'new world view' does not imply erasing all past traditions and starting from a void. Goerner (1995) said in this regard:

> Newton-bashing has been a favorite theme of new age writers and chaos writers also often play this game. By way of correction then it is important to note that Newton does not go away. The findings of classical physics remain, they are just seen in a very different context. The systems that succumbed to the classical paradigm were a more limited case than was previously appreciated … We must remove assumptions based on them from our collective unconscious. Nevertheless, Newtonian findings remain quite intact (p. 22).

Sacrificing everything pertaining to modernist thoughts is thus not advocated by researchers such as Collins (1999, p. 4): "[t]raditional research methods are very important to all researchers, as these methods have been used for years and have served to build a foundation of robust knowledge". Dick (1997) said the following about developing new research methods:

> While it is difficult to see how researchers supportive of the alternative approach can truly move away from positivist methods (as they wish to do) given its implicit realist epistemology, it is doubtful whether positivism needs to be rejected altogether. What is needed is an openness to methodological experimentation that avoids new orthodoxies. We need to be able to develop accounts of society which help us understand it whether in terms of phenomenological ideas or scientific methods (p. 505).

There seems to be a move from 'method-centredness' to discursive practice where the research process does not map an objective social reality, but is a process that involves negotiation and interaction with the subjects of social inquiry (Kvale, 1992).

Liu and Liu's (1997) view of post-modernism is different to that described above. According to these authors, post-modernism as a discipline recognises no universal truths and post-modernists, for example, avoid the use of tests of statistical significance in their papers. Science, these authors said, is a problem in post-modernism. They also stated that although modernism and post-modernism have "radical differences in value orientation" (p. 169), these two approaches could be viewed as thesis and anti-thesis where the other generation's work is dismissed as invalid. These authors thus refute the possibility of

synthesis. If past events can be used as an indication, then there will be a division between the two approaches in the psychology of the twenty-first century. Like all the paradigms discussed thus far, post-modernism has also been criticised, specifically for its relativistic view of knowledge where there is “little or no confidence to assume that one interpretation of the social world can claim epistemological superiority over any other” (Porter, 2002, p. 59). Thus Porter questions the use of research where the results cannot be declared as more adequate than any other interpretation of events.

Although Liu and Liu’s argument may be a valid, this study concentrates on the positive contribution that post-modern thought has made to alert us to the realisation that we have based our knowledge solely on linear assumptions. A move towards uncovering the hidden scientific knowledge in the non-linear realm is needed. For instance, Peplau and Conrad (1989) argued in this regard that in challenging psychology from a feminist perspective, "[o]ur goals must be more radical and far-reaching, seeking not only to question our research methods, but more fundamentally to rethink the aims of science, the models we use to understand human experience, and the philosophical underpinnings of scientific activities" (p. 396).

In summary, a few points can be made about teaching research methodology from a paradigm that accepts alternative approaches, but that does not reject traditional ideas:

- Students should be made aware of the context in which the social sciences (and specifically psychology) developed and how this context influenced the way that social phenomena were and are currently researched.
- Students should learn that although it is necessary to master the technological skills needed to produce knowledge within the hypothetico-deductive model, this model has severe limitations for understanding the context in which knowledge production takes place.
- As possible future researchers, students should be made aware of the epistemological assumptions underpinning various paradigms or ways of knowing which include the so-called alternate paradigms.
- Students should be made aware of how these assumptions influence the way in which they do research and also the methods that they use.
- Students should be made aware of how their personal characteristics and life experiences influence the focus of their research (unless they are contracted to do specific research) and how they undertake research.
- Students should be made aware of their role in the research process and taught how to become reflexive researchers.

From the discussion about teaching research methodology that has been presented in the last few sections, it is clear that another view is being raised in current debates about doing and teaching research, that of pragmatism. For example, Patton (1996, p. xxii) stated that “[t]he methodological present acknowledges the value of different methods for different kinds of questions, and judges designs on the appropriateness of the match, i.e., the extent to which a particular method fits a specific problem”.

Patton thus advocates a pluralistic approach and identifies the fit between the method and the research problem as the key element in deciding on an appropriate approach for a social study. More recently, Tashakkori and Teddlie (2003) have argued that research practice is dictating that, instead of being expected to indulge in paradigmatic debates, students should be enabled to implement pragmatic solutions to social problems, for example by using combinations of quantitative and qualitative methods, whichever best suits the research question. This may point to the new hegemony termed pluralism mentioned earlier. The move towards pragmatism in research practice and the need to mirror this trend in academic instruction will form the basis of one of the discussions on methodology in chapter 4.

The first section of this chapter dealt with the influences that various worldviews had on research methodology in the social sciences and specifically within the discipline of psychology. The further possible effects of these paradigms on the way in which research courses are structured was briefly illustrated. The following section of the chapter deals with the higher education context in which teaching takes place and how this brings another perspective on how research courses should be constructed and taught.

2.6 Teaching research methodology in the context of South African higher education policy

"Who decides what knowledge is, and who knows what needs to be decided?" are questions posed by Lyotard (1984) when he stated that "knowledge and power are simply two sides of the same question" (p. 9). The recent paradigm shift in South African education has brought about a new way in which we think about what knowledge is and how it should be taught. The aim of this section of the chapter is not to present a detailed analysis of curriculum theory and practice[22], but to discuss the different ways in which knowledge is viewed and to look at where current ideas on the topic are centred. Therefore, expertise in the field of education is not claimed; the aim is rather to place approaches towards teaching research methodology in the context of the current educational paradigm in South Africa.

As outcomes-based education (OBE) is the new approach to education in South Africa, its application to teaching research methodology is explored. In order to commit itself fully to OBE, the government established the National Qualifications Framework and the South African Qualifications Authority to oversee the implementation of the new system. There are, however, critics of the system and their opinions of OBE are presented. OBE is defined and discussed, including some of its most important terms such as critical cross-field outcomes, learning area outcomes, specific outcomes and unit standards. Government's policy on higher education has also been influenced by so-called 'Mode 2' knowledge production, which in turn has been driven by trends such as democratisation (also known as massification) and globalisation. These concepts will be explained and elaborated on in the sections that follow.

[22] For detailed reading on the development of curriculum practice and theory from the pre-twentieth century see Schubert (1986).

2.6.1 The nature of knowledge

The nature of knowledge and the knowing process (defined as epistemology earlier in this chapter) is a branch of philosophy that has important implications for education. Some of the questions that epistemology deals with (regarding the nature of knowledge), according to Schubert (1986), are: Does knowledge have a structure? Do different kinds of knowledge have different structures? By what methods can knowledge be acquired and validated? To what extent is knowledge generalisable, and to what extent does it depend on particular circumstances?

Several ways of answering these and other questions regarding the nature of knowledge have developed over the centuries. Each way has implications for the way in which we see curriculum development and implementation. Below are some of the ways of knowing and their impact on the way in which we transmit knowledge in society (Schubert, 1986):

- *Authority*. One of the oldest ways of gathering information is from a person in a position of authority. The tribal leader, the poet, the priest, the ruler of a kingdom can be compared to the textbook, the encyclopaedia, the teacher or the administrator as custodians of authoritative knowledge.
- *Revelation*. Several deities in human history have been revered as the ultimate source of knowledge. Sacred scriptures, interpretations by prophets and personal contact have had a major impact on education throughout history. Major religions are accepted as truth; one such 'religion' is science, which is asserted by some as the most profound source of knowledge today.
- *Empiricism*. This source of knowledge is said to be older than that of authority or revelation. Empiricism claims that knowledge is gained through the senses we experience. If students cannot gather knowledge from all their senses then they do not have equal access to this knowledge and are therefore excluded from so-called 'mainstream' schools. *A posteriori* knowledge is gained from experience and observation while *a priori* knowledge comes from sources such as theory, revelation and intuition.
- *Reason*. This has played a central role in knowledge acquisition since ancient times. If something can survive rational or logical analysis, its credibility is established. Learners are encouraged to reason logically, for example, they must differentiate fact from opinion, draw inferences from data or identify assumptions.
- *Scientific method*. This is a hybrid of reason and empiricism. The hypothetical-deductive procedure of scientific method is used in both the natural and social sciences. If someone uses it in the course of everyday activities, it is seen as a practical problem-solving method.
- *Intuition*. Sometimes an individual immediately grasps certain aspects of nature or the social world. Intuition seems to play an important role in decision-making and taking action in everyday life. Some teachers develop and teach a curriculum intuitively while not allowing students that same method of knowledge acquisition: "… they attempt to instill in their students mechanistic, recipelike strategies of teaching and curriculum planning" (Schubert, 1986, p. 123).

These different ways of knowing involve positions that are rooted in epistemological assumptions. Curriculum developers act on the epistemological assumptions at the root of positions set forth by education theory developers and policy makers. It is important to examine the assumptions on which curriculum development is based in order to be aware of and attempt to constantly improve on the positions we take in what we base the transmission of knowledge on (Brew, 2003; Chin & Russo, 1997).

2.6.2 The transmission of knowledge in society

Lyotard (1984) asked these fundamental questions of the transmission of knowledge (which he termed 'education') from a pragmatic point of view: Who transmits learning? What is transmitted? To whom? Through what medium? In what form? With what effect? According to Lyotard, the fundamental reason for transmitting knowledge is to prevent the inevitable ending of necessary debate between scientist and partner (the partner being someone who is able to verify or falsify the truth of statements made by the scientist). The truth of the statement made by scientists as well as their competence is at stake in this process as one's competence is never a given fact. The evaluation of scientists' competence is made by their peers: "The truth of the statement made and the competence of its sender are thus subject to the collective approval of a group of persons who are competent on an equal basis. Equals are needed and must be created" (Lyotard, 1984, p. 24).

Didactics[23] enables this process to take place and presupposes three things: (1) students do not know what the teacher knows and that is why they have come to learn, (2) students are able to learn what the teacher knows and in doing so become an expert with competence equal to that of the teacher, and (3) there are statements that are indisputably true as they have been subjected to the exchange of arguments and rigorous research, and can therefore be taught as the truth. As Lyotard (1984, p. 25) summarised: "[i]n other words you teach what you know: such is the expert". Collins (1999) echoed this statement by saying that "[t]raditional education uses approaches and practices which are believed to influence people's thinking to the extent that they may be exploited and oppressed by the ideas of the educators" (p. 7). Teachers are expert knowers and prescribe the thinking of not-experts, the learners (Spady & Schlebusch, 1999). Hargreaves (1982) described the role of the teacher as follows:

> Teachers are qualified in their subjects; they *know*; and they are not satisfied until they have told their pupils what they know. In the jargon of the educationists this is the 'transmission' model of teaching: the function of the teacher is to impart knowledge to (in this respect) ignorant pupils, and the most obvious way in which to achieve this is by telling (p. 200).

To emphasise this point again: the primary concern of this style of teaching is "the transmission of knowledge and skills from the expert-teacher to the apprentice-pupil" (Brandes & Ginnis, 1986, p. 2). The emphasis is on the cognitive and practical domains with little recognition of the affective. The teacher has

[23] Didactics is defined as "the art or science of teaching" by the Collins English Dictionary (1979).

the authority to make and carry out decisions; learning is passive. Obedience, reward and punishment mark the relationship between the teacher and learner with a common acceptance of mistrust, conflict and fear as being part of the system. As the teaching process progresses, however, and students improve their skills, the teacher – as the expert – can confide to the student what the teacher does not know but is trying to learn. In this way, the student is introduced to the game of producing scientific knowledge, which Lyotard (1984) calls research.

If higher education is seen one of the sub-systems of the social system that forms our societies, the goal it will strive to achieve is to support that society. One way of doing this is to create skills that the system will find indispensable. According to Lyotard (1984), there are two kinds of skills: the first type is designed to supply to the demand that the world market has. The second type is designed to fulfil society's needs: "… universities and the institutions of higher learning are called upon to create skills, and no longer ideals – so many doctors, so many teachers in a given discipline, so many engineers, so many administrators, etc." (Lyotard, 1984, p. 48). He stated further that "[t]he transmission of knowledge is no longer designed to train an elite capable of guiding the nation towards its emancipation, but to supply the system with players capable of acceptably fulfilling their roles at the pragmatic posts required by its institutions". This is how the principle of performativity[24] plays itself out in higher education.

More recently, George (1997) suggested that the role of education is to develop human resources such that our workforce is equipped with the skills and qualities that they will need to cope in a technological world that is ever changing. According to Curriculum 2005: Lifelong Learning For The 21st Century (1997, p. 3):

> … successful modern economies and societies require citizens with a strong foundation of general education, the desire and ability to continue to learn to adapt to, and develop new knowledge, skills and technologies, to move flexibly between occupations, to take responsibility for personal performance, to set and achieve high standards, and to work cooperatively.

According to Spady and Schlebusch (1999), key new formal sector jobs are going to the type of individual described above:

> [t]o remain 'nimble' in the global marketplace, organisations need and rely on capable, self-starting, innovative and adept employees who can do 'smart work', 'think outside the box', want to learn continuously and improve how they operate, and perform on the cutting edge to help their organisations flourish (p. 18).

Individuals who achieve these strengths may also become an invaluable asset to their organisation (Schwahn & Spady, 1998). Also, technology and information technology jobs in South Africa are most

[24] Performativity refers to the relationship between input and output in a system where the goal is to maximise efficiency, i.e. putting in minimal effort to gain maximum outcomes (Lyotard, 1984).

prevalent in the vacancies listed in the media (Spady & Schlebusch, 1999) and individuals need to be prepared in such a way that they can cope with these trends.

It is further assumed that through education we can bestow these skills and qualities on our citizens to not only put them on par with other developed countries, but also to equip them to cope in the international arena. South Africa needs to transform its society into a prosperous one and the state has the responsibility to ensure that the curriculum in schools reflects the goals of this transformation (Potenza, 2000). Political leaders and educators have decided that the current system of education is not good enough and have identified outcomes-based education as a better system. This suggests that the *status quo* (the current system) "has failed the masses and benefited only the elite of society, the so called 'educated' " (George, 1997, p. 1).

2.6.3 The influence of modernist assumptions on education and contrasting exogenic and endogenic worldviews

As has been outlined in section one of this chapter, alternative worldviews and their outlook on social science research abound. According to Banathy (1992, p. 10), however, "we have failed to implement the massive scientific 'paradigm shift' that has occurred in the course of the last several decades", especially in the educational context. The traditional or classical scientific worldview is still being used as the basis of the approaches being applied to educational reform. Recommendations from commissioned investigations into the school system have insisted on doing 'more of the same': more classroom instruction, more of the 'basics' and science, more discipline, more teacher training, more control, more parent participation and more pay for teachers.

The rise of positivism in the modernist era (see Lui & Lui, 1997) had a profound impact on education and has been criticised for the way it has impacted on the construction of curricula by treating children as objects instead of subjects of education, thereby encouraging manipulation of pupils. The pre-ordained content that is presented to children stifles their creativity (Young, 1990). Educationists who adhere to positivist notions assume that:

- they can predict and control the behaviour of learners in the educational process
- there is a single reality independent of those who manipulate or are affected by it during the educational process
- human beings are predictable in their behaviours when subject to defined stimuli (Fielding, 1996).

This gave rise to the notion that objectivity and control can be applied to the teaching process. Jonassen (1991) described the link between objectivity and the learning process as follows:

> Objectivists believe in the existence of reliable knowledge about the world. As learners, the goal is to gain this knowledge; as educators, to transmit it … The role of educators is to help students learn about the real world. The goal of instructional designers or teachers is to

> interpret events for them. Learners are told about the world and are expected to replicate its content and structure in their thinking (p. 8).

Gergen (1994) termed this theory of knowledge the exogenic worldview. In the sections that follow this worldview will be contrasted with another, the endogenic worldview.

2.6.3.1 The exogenic versus endogenic worldviews: implications for education

The exogenic worldview is a world or environmentally-centred theory where "human knowledge in ideal form may be viewed as a reflection of the real world or a map of nature's contours" (Gergen, 1994, p. 175). The human mind is thus susceptible to influences from the environment. The exogenic worldview embraces a dualism where an external world (such as a material reality) is contrasted with a psychological world (which is cognitive, subjective, symbolic or phenomenological). Knowledge is achieved when individuals accurately portray the state of the external world, when their mind mirrors nature.

In the exogenic tradition, keen observation in the acquisition of knowledge is strongly emphasised; emotion and motivation are contaminants of the neutrality needed to accurately record nature. Knowledge (in the form of an internal map) of the environment is important for the individual to cope in complex surroundings. For the exogenicist, the world is a given and when a person's mind accurately reflects this world it is able to function at its best (Gergen, 1994).

It could be said that the description of an exogenic way of knowing has characterised the quality of the learning journey for many South Africans. Cosser (1998) summarised this journey as follows:

- information is memorised and repeated in examinations
- learners are coached expressly for examinations
- the approach towards learning is superficial
- knowledge is received passively and the educator is not questioned
- learners are not able to apply information or knowledge in new (or any) situations
- learners look for one right answer to questions and problems
- learners do not take responsibility for own learning
- learners do not learn from their mistakes.

By following this method of instruction and learning the student gets caught in a 'vicious learning cycle' (Mumford in Dennison & Kirk, 1990). In this cycle, the teacher begins by defining the area of knowledge or skills that need to be learned. This knowledge is then transferred to the students and they are left to translate what they have learned to other situations. Many students may have difficulty in transferring ideas to their own situations, as they do not see the relevance of the topic or are not motivated enough. The learners thus do not receive rewards from the learning process and may not be motivated to progress. This cycle can be illustrated as follows:

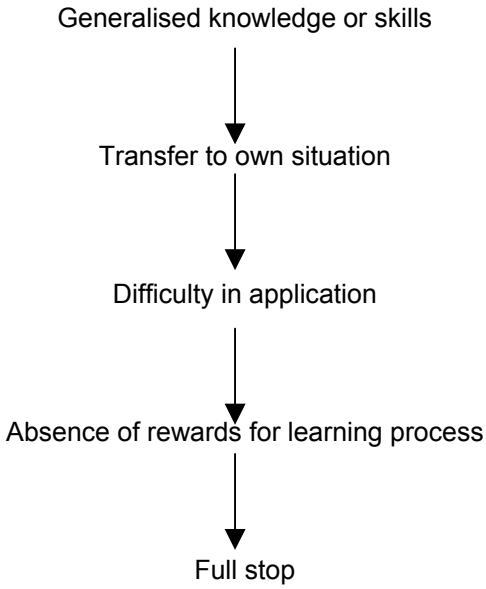

Figure 4 The vicious cycle (Dennison & Kirk, 1990, p. 17)

In contrast to the exogenic worldview, Gergen (1994) placed the endogenic or person-centred theory of knowledge. This worldview asserts that "the human mind can be viewed as the origin of knowledge, a fount of conceptual construction, or a source of thought forms that frame both the questions that may be put to nature and the answers derived therefrom" (p. 175). Although both the endogenic and exogenic traditions agree that mind and world are independent and that knowledge is a mental state, the endogenicists view the mind as a primary given. As such, questions are raised about how the mind operates in order to function successfully in nature. Emphasis is placed on a person's innate capacities for reason, logic or conceptual processing (Gergen, 1994).

Gergen (1994) further contrasts the exogenic and endogenic worldviews in six points. This contrast is presented in table 2 below:

Table 2 The contrast between the exogenic and endogenic worldviews (Gergen, 1994)

Attribute	*Exogenic*	*Endogenic*
Nature of knowledge	Objective knowledge about the environment is possible as the environment drives the senses in predictable ways.	Knowledge is a product of the individuals who process it, thus traditional criteria of objectivity are suspect.
Nature of reality	Consensus can be reached between practitioners of science as there are objectively correct and incorrect answers about the world.	Conflict between opposing views is superior to consensus; multiple interpretations of experience exist and are both legitimate and acceptable.
Position of the observer	Reality is independent of the observer, thus scientific neutrality is attainable. Scientists must avoid using their values to guide the course of observation as this may lead to an inaccurate recording of the state of nature.	The observer cannot be neutral as recordings of reality are psychologically generated. Any findings can therefore not be independent of the observer.
Locus of control of behaviour	Due to the empirical world impinging on human senses there is an external locus of control for human action; behaviour is dependent on or determined by environmental events.	Individuals have the free will to construct or interpret information from the environment or the memory. The locus of control is thus internal.
Fact and value	The separation of fact and value, due to environmental determinism, implies that moral value is not in the scope of the discipline.	Moral issues are inescapable as people personally construct reality; fact and value are inseparable.
Research methods	Methods of measurement and control are strongly emphasised. These methods deliver unbiased assessments of the facts.	Empirical methods give rhetorical and not ontological support for the scientist. Rhetorical support is seen as sustaining existing, accepted theoretical positions which remain supported by the methods that investigate the theories.

As can be seen from the table above, Gergen's link between the exogenic tradition and positivism is portrayed in the traits that the two approaches have in common such as a belief in an independent reality,

value neutrality of the observer, determinism playing the only role in human behaviour, the exclusion of the study of morals and values, and specific methods that meet requirements of scientific (positivistic) research. The attributes of the endogenic and exogenic worldviews translate into certain forms of educational practice. The differences between these forms will be briefly presented below.

2.6.3.2 The link between the endogenic and exogenic traditions and educational practice

The exogenic perspective views the student as a *tabula rasa*[25], it being the duty of the educational process to inscribe the fundamental features of the world thereon. Students are encouraged to make direct observations or attain enrichment of experience. Books and lectures are favoured as the person can acquire great amounts of information that cannot always be achieved through direct observation. The primary emphasis in assessment is placed on individual knowledge acquisition. The use of media such as multiple-choice questions, test standardisation and statistical normalisation helps to determine to what degree the student's mind (or slate) has been filled (Gergen, 1994). According to Brew (2003), the person teaching the students is central to this view, which focuses on the transmission of information by the teacher.

In the educational system, the endogenic perspective focuses on the rational capacities of the individual. The way in which information is pondered on is more important than the quantity of information in one's mind. The fields of mathematics, philosophy and foreign languages are emphasised as subjects that will enhance the capacity for thought. Lectures are replaced by class discussions, as it is through active engagement that cognitive skills are maximised. Assessment is done via essay examinations and assignments as it is argued that rationality is best trained through these means. Evaluation is also seen in terms of quality rather than quantity (Gergen, 1994). In contrast with the exogenic view, students thus take responsibility for their own learning and become the focus of the classroom practice.

2.6.4 International trends in higher education

The change in political dispensation in South Africa has been accompanied by new policies concerning education and training. Legislation has been developed to effect transformation on a large scale in order to counteract the debilitating effects of so-called Bantu education and second-rate opportunities that were available to black scholars and academics during the years of Apartheid. Accompanying the actions to change education, new social, political and economic arrangements are being developed to ensure South Africa's successful interaction in the world market. Some of the new structures driving these changes will be referred to section 2.6.5. In this part of the chapter some of the theory that has informed international policy changes will be discussed such as the adoption of a different mode of knowledge production, globalisation, the knowledge economy and massification of education.

[25] *Tabula rasa* comes from the Latin meaning 'blank slate'. The British empiricist philosopher, John Locke, shared the value placed by Aristotle on empirical observation and believed that life and experience 'write' knowledge on our slates. The proponents of nurture accept this view, i.e. learning is influenced by our environment (Sternberg, 1998).

2.6.4.1 Globalisation and massification: moving from Mode 1 to Mode 2 systems of learning

Debates within South African academic circles have not remained untouched by international theorising on the changing nature of knowledge production and the causes for these trends. Authors such as Kraak (2000) have outlined the current position that South African higher education finds itself in, largely due to the impact of the thoughts around events such as globalisation and the massification of learning on government's education policies. Globalisation signifies the increased interaction that is taking place between communities across the world, which is opening channels for debate and the interchange of knowledge. One of the implications of this global interaction is that sets of values common to homogenous groups are being challenged in order to address the plurality of cultural values that occurs within the global village. Globalisation is thus intensifying the need to re-examine the link between theory and practice so that the international community can face the challenges of addressing differences in values and the way in which each community perceives knowledge (McNair, 1997).

Yet globalisation has seen economically developing regions such as Africa marginalised from the mainstream of new societies that base their capital on information. As Castells (1998) pointed out, "[g]lobalization proceeds selectively, including and excluding segments of economies and societies in and out of the networks of information, wealth and power, that characterize the new, dominant system" (p. 161). Being in the embryonic stage of joining the global economy, South Africa will need to ensure that it can successfully integrate into this village and not be sidelined in the process. Accompanying the pressure that globalisation is placing on higher education is the international trend to make higher education more accessible to various marginalised communities such as the working class (thus referred to as massification or democratisation). Economic and social demands that workforces need to be more educated and trained than in the past implies that knowledge is no longer dominated by 'élite academic cultures' and higher education institutions must look towards an integration of knowledge generated in partnerships with industry and the state (Kraak, 1997).

This opposition to transcendental knowledge claims (universal truths that apply to all people) and the dominance of elitist academic positions on knowledge production have led to major changes in how higher education programmes are structured and delivered (Kraak, 2000). Lyotard (1984) recognised this trend decades ago: "Higher education has become increasingly defined by its capacity to create and produce skills indispensable to competition in world markets and the efficient maintenance of internal social cohesion" (p. 48) (see the discussion of performativity in higher education in section 2.6.2). Yet, universities are losing their monopoly over knowledge and need to reconsider their position vis-à-vis the way they organise the qualifications they offer. This step is necessary to ensure that universities are able to deliver a different type of worker: "[i]nnovation is at the heart of this new system – the ability to continuously reinvent products and add value to existing designs …" (Kraak, 2000, p. 3). This implies that education systems will be required to produce such individuals, that is, employees who can function in these learning organisations.

Gibbons, Limoges, Nowotny, Schwartzman, Scott and Trow (1994) coined the terms 'Mode 1' and 'Mode 2' knowledge production to distinguish between past and present ways of doing research and the

subsequent learning that takes place. Questions that would illuminate the differences between Mode 1 and Mode 2 could be, for example: Who generates information? Where is the information generated? How is the information structured? Who has access to this information? How is the information presented to people? What impact does this information have on society? The answers to these questions are summarised concisely by Kraak (2000) in his comparison between elitist and mass, open higher education institutions. Accordingly, elite systems tend to be discipline-based, closed in terms of the diversity of the people and structures who participate in them and hierarchical in management, while delivery of education takes place via face-to-face contact. In contrast, the latter type of institution is more open to different groups of people, encourages partnerships with government, the private sector and other major economic or social role-players, and offers many types of modes of delivery. Most importantly, the organisation of learning is not limited to interaction within a discipline, but occurs across fields and even institutions. This makes knowledge trans-disciplinary as it includes elements from all disciplines into a type of hybridised science that cannot be fitted back into the separate subjects of Mode 1 learning.

This trans-disciplinary and trans-institutional nature of Mode 2 is, according to Gibbons et al. (1994) and Scott (1995), what characterises the new way in which organisations will function. Knowledge is not something held within elite academic circles for the sake of academia, but it is generated within the context of real-world problems that need to be solved in industry. Hence, Kraak (2000) refers to these solutions as 'socially accountable knowledge' because of their meaningful contribution to society or their applications in industry. The solutions are also characterised by heterogeneity in that different processes are used in innovative ways to find answers. The implication of the above discussion is that learners who enter higher education systems should exit as trans-disciplinary problem solvers and innovative knowledge producers.

According to Kraak (2000), the various policies mentioned imply that Mode 2 research is more useful to address the demands of the current world economy and thus should be ranked above Mode 1 research. This position has, however, been questioned by some individuals and a critique is set out below.

2.6.4.2 Should Mode 2 learning and research be afforded a privileged place in higher education?

The heading of this section asks the important question of whether Mode 2 should supplant Mode 1 education and research in tertiary institutions. Should educators uncritically accept a different way of structuring learning and change curricula by developing programmes that are flexible, transdisciplinary, focused on problem-solving, interdependent, relevant to a specific context, funded from many sources and so on (issues that will be elaborated on below)? In other words, this position accepts that Mode 2 knowledge production has profound implications for the way in which we teach students and the knowledge they will need to compete in a society that demands specific kinds of skills. Another assumption that is made, for example, is that there are vast differences between the current curriculum and the type of syllabus that proponents of Mode 2 would put forward. Muller (2000, p. 50) warned that "[academics] may for convenience simply teach their Mode 2 involvements instead of what the curriculum requires" and that academics will be less involved with students as a result of commitments to their own

research agendas. An academic's position as a research consultant to various sectors of society may thus be afforded a privileged place and affect the kind of teaching that they do (Brew, 2003). An advantage of this may be that students will receive more up-to-date content in the curriculum and thus be better prepared for the types of positions they will occupy in the real world of work (Muller, 2000).

On a higher level than curriculum design, Robins and Webster (1999) identified a crucial point regarding the future of the university within the context of a post-Fordist society (this type of society is described in chapter one). It is Robins and Webster's contention that the characteristics of this economically driven era (constant change, for example) are defining the learning that is taking place at some universities. Learning programmes are thus being adjusted to suit an economic agenda. Also, universities have been influenced by international trends of societies which hold institutions accountable for how they spend their money. In this environment, business traditions are mimicked in order to generate non-governmental income and the marketisation (or commercialisation) of higher education takes place to avoid the criticism that "universities have not managed to supply appropriate outputs, that graduates have most conspicuously lacked the 'transferable personal skills'[26] that would make them useful to employers" (Robins & Webster, 1999, p. 196). In South Africa "governments and employers are calling on education providers to develop generic transferable skills in learners" (Department of Education, 2002). To facilitate this, the Department of Education (DoE) has written generic level descriptors[27] to describe these skills so that they can be developed and integrated into specific curricula. Mode 2 subscribes to this marketisation agenda as it focuses strongly on partnerships with industry and delivering students with skills that will fulfil industrial needs. Critics of this trend, such as Slaughter and Leslie (1997), have pointed out what they believe the consequence will be of the wholesale adoption of Mode 2: the destruction of traditional academic goals, what Robins and Webster (1999) referred to as 'narratives of decline'. For example, research for its own sake will be replaced by research that can serve the purposes of industry.

An added dimension to this phenomenon is the freedom that post-Fordism affords adherents of post-modernism to advocate the post-modern university. If society is 'flexible', 'constantly changing', 'plural', 'reflexive' and 'diverse' then these traits should be reflected in the institutions of education that serve this society. The DoE (2002) has identified this trend by providing generic level descriptors that "can act as a starting point for curriculum planning and quality assurance for providers within and without formal education e.g. for employers offering work-based modules/unit standards". The problem with this approach is aptly illustrated in the citation below:

[26] Transferable skills could be defined as competencies that students should be able to demonstrate which, although they are not directly related to a specific discipline, will allow them to market themselves across different markets. They are "general cognitive abilities [that] can be transferred from one context to another" (Smith, 1984, p. 87).

[27] Level descriptors attempt to describe the nature of generic learning achievement, its complexity and relative demand at each level of a qualifications framework. In summary, they are:

- broad generic qualitative statements against which more specific learning outcomes can be compared and located
- used to determine the pegging of qualification types on a framework
- general and indicative of more specific curriculum decisions, which means that they can never be prescriptive or fully comprehensive
- a shared understanding of the education and training advancement achieved at each level (DoE, 2002).

> Thus the university can no longer be identified by virtue of its separation from the outside world, while simultaneously big companies … are becoming more conscious of their roles as creators, disseminators, and users of knowledge – a definition not altogether different from that of a university (Robins & Webster, 1999, p. 214).

The question that can consequently be asked is: What right does the university therefore have, above other sectors in society, to be the sole distributor of knowledge? Also, how will the university distinguish itself from other role-players such as industry? These questions are difficult to answer. Although Robins and Webster (1999) made a case for people to remain loyal to the university based on its sentimental ideals of "disinterestedness, critical inquiry, open debate, rigorous examination of evidence …" (p. 217), this idea seems to be a rather emotional appeal to nostalgia; is it enough to ensure the future of the university in a rapidly changing society?

Another role that the university needs to focus on, according to current debates, is its contribution to social change. The emphasis in this area moves away from serving the economy to addressing the social needs of people. Subotzky (2000) suggested that the university should view itself as a partner for communities in order to bring about social change. In the past the knowledge that has been pursued at university has become separated from the personal lives of academics. Bradley (1998) has identified this trend in the training of under-graduate psychology students:

> Hence among the compost of facts to which the typical degree course introduces students of psychology, there will be little to worry them about fighting social inequality or ending social and psychological repression. Students may learn much about personality, the nervous system, statistical analysis, the simplest kind of visual illusion, and infant communication. However, they are unlikely to learn anything that obliges them to think seriously about poverty, alienation, domestic violence, war, starvation, and ecological destruction. Such facts may concern them as private citizens. But they will hear that, "as scientists, … [psychologists] have no special obligation to solve social problems (Miller, 1969: 1063)" (p. 70).

The way we respond to social problems is thus another agenda that some academics pursue. Subotzky (2000), for example, described these intellectuals, who are prevalent in the USA, as black, female or young people "who wish to integrate social concerns into their personal and professional lives and to establish the social utility of research" (p. 116). He further stated that they believe that "truth should not be separated from personal experience" (Subotzky, 2000, p. 116). It could thus be argued that as academics we need to protect our interests, while at the same time remaining relevant to the needs of society. We should create an identity for ourselves that is not only at the mercy of changing trends in the economy, but that also pursues knowledge for its own sake to ensure that we have a stake in the universal act of knowledge production. It is thus Muller's (2000) standpoint that this study chooses to identify with: "to adopt a radically disjunctive replacement thesis for Mode 2, a celebratory post-modern view, would lead us at best to conundrums and perhaps outright contradictions" (p. 52). The view that

Muller (2000) takes is that Mode 2 should not replace Mode 1, but that a complementary relationship should be allowed to develop between the two modes. This is especially relevant to South Africa where we need to enlarge our pool of disciplinary experts that are produced through Mode 1 teaching and research, yet remain relevant within international trends in higher education (Bawa, 1997).

In practice this would mean that students must receive a good foundation in content (Mode 1) before being expected to demonstrate competencies such as problem-solving, ability to work productively in a team and critical thinking. It may be wise, therefore, to heed Kraak's (2000) opinion that Mode 2 will bring about constructive changes and his call to view Mode 2 as an intensification of processes that have always taken place between universities and the commercial sector (e.g. delivering students who can play a positive role in a capitalist system). Perhaps we could also include Subotzky's (2000) idea of transforming problematic structures in societies in our curricula or Bradley's (1998) critical, political 'psychology as a practice of emancipation'. Although there is much theorising about what tertiary education looks like currently and why, there are few suggestions on how to develop an approach that allows complementary Mode 1 and 2 knowledge production in a specific curriculum. Although curriculum development is outside the scope of this study, it is a relevant topic to be explored in future research projects.

2.6.4.3 A more varied approach to categorising research

Research may, however, be even more varied than suggested by the dichotomous Mode 1 and Mode 2 debate presented above. As Muller (2000, p. 47) stated, "[i]t over-homogenises the evolution of a phenomenon that probably happened much earlier, and it over-dichotomises it, presenting it as two discrete ideal types that probably never exist in their pure form in the real world". The various bodies governing higher education policy in South Africa have recognised the variation in approaches with their categorisation of research into four areas: traditional, applications-driven, strategic and participation-based, but clearly position these areas in Mode 2 learning. The *White Paper on Science and Technology: Preparing for the Twenty-First Century* published by the Department of Arts, Culture, Science and Technology (DACST, 1996) "explicitly encourages problem-solving research through the formation of societal partnerships and cross-sectoral government policy co-ordination" (Kraak, 2000, 30). Robson (1993) also emphasised that research - or enquiry as he terms it - can be viewed as a way of solving problems. The difference, however, between the distinction of Mode 1 and Mode 2 knowledge production and the four areas identified by government on the one hand, and Robson's perspective on the other hand, is that research is place on a wider continuum. Solving problems ranges from purely theoretical to entirely practical as illustrated in figure 5. The dimensions also move from pure to applied research and according to increasing contribution from the client. No value judgement is attached to the dimensions; where a particular study lies on the continuum depends on the circumstances of an individual project.

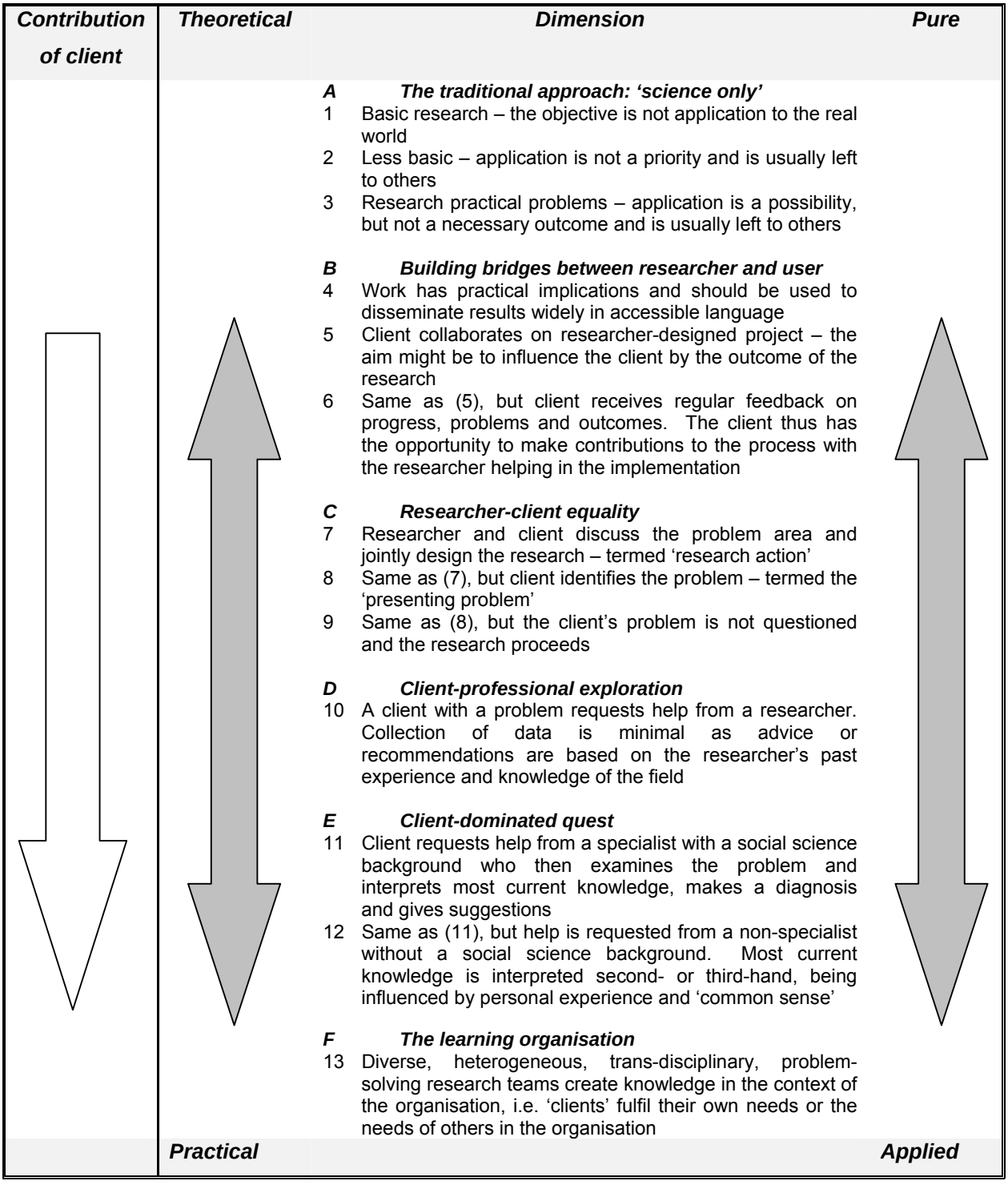

Figure 5 Approaches to solving research problems (adapted from Robson, 1993)

Robson's five dimensions do not adequately represent the characteristics of Mode 2 knowledge production as outlined in the previous section. A sixth dimension has therefore been added, namely the learning organisation. This portrays the type of research that takes place in a real world setting where the answer can be applied to a problem experienced by the organisation or other sectors of society. This is also referred to as a 'networked' mode of knowledge production, diversity within the organisation that

"arises because Mode 2 is the outcome of teams of knowledge workers with diverse backgrounds, who in most cases are employed in pursuit of innovation by networking firms" (Kraak, 2000, p. 14). Muller (2000) would not place this type of research within the framework that has been provided above, as he views knowledge production of this kind as positioned outside of pure and applied research conventions. Similar to Kraak's intended meaning cited above, Muller characterises the learning organisation as a place where interaction on a social level provides the necessary route to the kind of Mode 2 research described in this chapter. To provide a clear picture to the reader of the contrasts and developments in the dimensions of research, however, the addition has been placed in figure 5.

Higher education and training institutions are thus faced with the challenges of engaging in the debate and positioning themselves in terms of Mode 1 and Mode 2 knowledge production. How these debates have been transformed into concrete measures to address the situation of South African education will be discussed in the following section. One of the aims of this study is to examine how research methodology courses have portrayed the policies of government in their curricula. Furthermore, any signs of the impact of the changing research environment will also be sought.

2.6.5 The effects of Mode 2 learning on higher education policy and research in South Africa

Notwithstanding the reservations of certain academics and alternative views on the merits of Mode 2 learning, new higher education policies have been implemented (to lesser or greater degrees) in South African tertiary institutions. The South African government has recognised and integrated the trends of globalisation and massification in its policies affecting higher education. Indeed, Kraak (2000) identifies clear signs of Gibbons et al.'s (1994) and Scott's (1995) work in the documents released by government, such as the National Commission on Higher Education's (NCHE) final report, *A Framework for Transformation,* released in 1996, the DoE's *Green Paper on Higher Education Transformation* released in 1996, the *Education White Paper 3: A Programme for the Transformation of Higher Education*, also released by the DoE in 1997, and the 1997 *Higher Education Act*. Kraak (2000) categorises the NCHE report into five areas of recommendations regarding the transformation of higher education[28]. These recommendations loosely overlap with the characteristics of Mode 2 learning institutions as set out briefly above. The implementation of the new policy in South African higher education would have the following consequences:

- Massification - by increasing student numbers. Other effects would include an increase in diversity in terms of the type of student and flexibility in the structure of how qualifications are presented
- Interdependence – by forming new relationships between tertiary institutions and key stakeholders in society such as government, the private sector, NGOs and other bodies where knowledge production also takes place. This could add value to traditionally exclusive academic arenas

[28] Kraak focuses on the NCHE report as he argued that many of the recommendations made in the report have been carried through to the Green and White Papers and the Act already mentioned.

- Social accountability – by responding more actively to social and economic concerns and providing the labour market with people who are attuned to solving problems facing our society
- Centralisation of planning – by putting a National Higher Education Plan in place to ensure a systematic approach to preparing South Africans, across all institutions, for suitable roles in the global economy
- Preservation of institutional identity – by allowing institutions to initially retain their own identities and niche in the education market within a national planning framework for the structure of higher education in South Africa
- Providing programmes instead of courses and qualifications – by integrating and transforming isolated courses into broad programmes with a specific focus that also allow students to transfer and accumulate credits over time and at different institutions.

Besides the implications of new policy for higher education described above, an essential aspect of the recommendations for transformation that is relevant to this study deals with the changes that are touted by policy for research practice. The NCHE (1996) accepts the changing dynamic of knowledge creation, which encapsulates the themes of globalisation, massification, trans-disciplinarity and the practical contribution of research to societal problems. The financial support made available for research projects also reflects these changes: "[f]unding is almost always from more than one source requiring different forms of interaction, accountability and management. Knowledge is increasingly trans-disciplinary and trans-institutional (a widened social base participating in its construction) …" (NCHE, 1996, p. 126). Besides the new types of general skills that students must have to cope in the knowledge economy, under-graduate courses in research methodology should reflect the different way in which research is practiced in this environment. A module in research methodology will thus form part of and needs to fit into a broader programme. Students should be able to demonstrate certain skills on completion of a course that reflect the competencies they have acquired (Robins & Webster, 1999). More specifically, students should be equipped to secure funding (depending on the context they practice in) for research that is relevant and accountable, that is based on partnerships across various sectors of society and that makes use of different disciplinary fields. This section describes the types of structures that have been established to monitor or guide this implementation.

2.6.5.1 SAQA and the NQF

The South African Qualifications Authority (SAQA) was established by the South African Qualifications Authority Act of 1995 (RSA, 1995) due to "the profound, virtually universal discontent with the nature and quality of education and training in South Africa" (South African Qualifications Authority Bulletin, 1997, p. 2). The most important functions of SAQA are to:

- oversee the development of the NQF
- oversee the implementation of the NQF
- advise the Minister of Education and Labour
- consult with all affected parties.

SAQA's members come from a wide range of stakeholders that include business and labour. The structures responsible for the curriculum framework are similarly organised. Two sub-structures of SAQA are responsible for establishing national standards for education and training. The National Standards Bodies (NSBs) are responsible for delimiting the scope of an education field, establishing Standard Generating Bodies (SGBs) and general management of standards. The SGBs in turn generate the standards and manage the processes linked to this such as recommending criteria for assessment and so on (South African Qualifications Authority, 2000). This is to ensure the development of an integrated approach to education and training which in turn contributes to the overall aim of developing human resources in South Africa (Curriculum 2005: Lifelong Learning For The 21st Century, 1997).

In addition to SAQA, the National Qualifications Framework (NQF) came about as a result of two major imbalances in the past system: racial inequalities and an explicit academic bias. The demand for national standards for education and training in South Africa grew in the late 1980s. The idea of a National Qualifications Framework arose in the early 1990s and was established in agreement with all major stakeholders. National standards for particular areas of learning were housed within a qualifications framework. This framework is characterised by the promotion of lifelong learning, the integration of education and training, the recognition of learning gained outside of formal institutions and allowance for flexible, portable credits and qualifications. The NQF was officially endorsed in 1994 in the RDP White Paper and the Education and Training White Paper of 1995 and the NQF Bill passed into law as the SAQA Act (4 October, 1995, Gazette No. 16725). Faasen (1997) said the following of the NQF: "[t]he NQF could possibly be seen as one of the strongest instruments for development in the country. The opportunities afforded by the NQF will affect the lives of millions of our people in a very positive way" (p. 2). This certainly provides a standard structure for all educational purposes, but it should probably be viewed as a work in progress that might need future refinement as it is put into practice. Parts of the framework have recently been revised, as will be pointed out shortly.

The chief responsibility of the NQF is to oversee the construction of a framework that incorporates qualifications, credits and unit standards that can be applied to the education framework in South Africa (Olivier, 1998). The specific functions of the NQF are to:

- create an integrated national framework for learning achievements
- facilitate access to, and mobility and progression within education, training and career paths
- enhance the quality of education and training
- accelerate the redress of past unfair discrimination in education, training and employment opportunities
- contribute to the full personal development of each learner and the social and economic development of the nation at large (South African Qualifications Authority, 2000).

The NQF consists of eight levels which provide for general, further and higher education and training bands. These levels are presented below in table 3 (Olivier, 1998):

Table 3 The eight NQF levels

NQF level	*Band*	*Types of qualifications and certificates*
8	Higher	Doctorates and further research degrees
7	Education	Higher degrees
6	And	First degrees and higher diplomas
5	Training Band	Diplomas and occupational certificates
4	Further Education	School/College/NGO certificates (Grade 12)
3	And	School/College/NGO certificates
2	Training Band	School/College/NGO certificates
1	General Education And Training Band	Senior Phase Grades 7-9 / ABET Level 4
		Intermediate Phase Grades 4-6 / ABET Level 3
		Foundation Phase Grades 1-3 / ABET Level 2
		Pre-school / ABET Level 1

In the table above NQF level 1 refers to the basic levels of schooling (up to grade 9) that a child receives. The ABET – an acronym for Adult Basic Education and Training – levels correspond (though not exactly) with the phases of this first level. The Further Education and Training Band includes school levels from grades 10 and 12 as well as college and other certificates that are equivalent to these grades (NQF level 2 – 4). Tertiary education and qualifications equivalent to NQF levels 5 – 9 are incorporated in the Higher Education and Training Band. Levels 1 and 8 are open-ended so that low level entrants can be accommodated and a ceiling effect at the highest level can be avoided.

The DoE (2002) has since reviewed this framework and first degrees now fall into NQF level 7. Specifically, students who complete an under-graduate degree need to demonstrate the following competencies:

- a well-rounded and systematic knowledge base of the field of study and a detailed knowledge of some specialist areas
- a coherent and critical understanding of the terms, rules, concepts, principles and theories in the field of study. An ability to map new knowledge onto a given body of theory. An acceptance of a multiplicity of 'right' answers

- effective selection and application of the essential procedures, operations and techniques of the field of study. An understanding of the central methods of enquiry and research in the field of study. Knowledge of at least one other mode of enquiry
- an ability to deal with unfamiliar concrete and abstract problems and issues using evidence-based solutions and theory-driven arguments
- well-developed information retrieval skills. Critical analysis and synthesis of quantitative and/or qualitative data. Presentation skill following prescribed formats, using IT skills appropriately
- an ability to present and communicate information and their own ideas and opinions in well-structured arguments, showing an awareness of audience and using academic/professional discourse appropriately
- a capacity to operate in variable and unfamiliar learning contexts, requiring responsibility and initiative; a capacity to self-evaluate and identify and address own learning needs; an ability to interact effectively in a learning group.

From the points above it seems that Mode 1 learning is still maintained insofar as students are given a knowledge base to work from. Mode 2 is evident, however, as Robins and Webster (1999, p. 198) described it: "[j]ust about everywhere the expressed intent to stimulate 'critical thinking' abounds …". They posited that training in critical thinking is emphasised internationally in the new model of education in order to create 'reflective practitioners' of students "the better to allow them to choose their own future options, as well as to learn more effectively from their past and ongoing experiences" (Robins & Webster, 1999, p. 198). This is further reflected in the DoE's threefold approach to the competencies students must display: foundational, practical and reflexive. In foundational learning students must demonstrate their comprehension of the knowledge that grounds the discipline. Practical competence is the demonstrated ability, in an authentic context, to consider a range of possibilities for action, make considered decisions about which possibility to follow, and to perform the chosen action. In reflexive learning students must show their ability to integrate or connect performances and decision-making with understanding. They should be able to adapt to change and unforeseen circumstances and to explain the reasons behind these adaptations. Learning is thus connected to a real-world setting where students are coached to take responsibility for their actions. Not all under-graduate courses in research methodology will display these aspects as these are the skills that students must possess on completion of the degree. Courses on first and second-year levels should thus build up to these competencies.

Furthermore, the DoE stated the following about the implementation of level descriptors:

> Following the 'nested approach' to standard-setting, level descriptors should be understood as guides, indicating a broadly acceptable level of learning, skills and learner autonomy for a particular level on the NQF. Generic level descriptors are not standards or qualifications and should not be used directly as learning outcomes or assessment criteria. They operate at a more abstract level, with an advisory rather than prescriptive status. They should therefore be used as a conceptualising and organising tool to frame the description and specification of qualification types and their variants and specialisations, and to guide the writing of

> specific learning outcomes and assessment criteria at the qualification, programme and modular level (where the teaching and learning takes place). But we should not expect a particular qualification (and certainly not a single unit standard) to deliver the precise capabilities described for the level at which it is registered in a manner that can be directly linked to its particular learning outcomes and assessment criteria. Instead the capabilities described for a level should be understood as an abstracted, broad threshold of learning which only applies in a re-contextualised form to the particular qualification specialisations registered at that level. It will always require professional and curriculum expertise to interpret and contextualise generic level descriptors in particular educational, training and/or disciplinary contexts (http://education.pwv.gov.za/DoE_Sites/Higher_Education/Academic_Policy/chapter%205.htm).

This statement thus provides for a degree of institutional and disciplinary autonomy as pointed out earlier by Kraak (2000).

2.6.5.2 Outcomes-based education

One of the key terms defining the new paradigm for teaching in South Africa is 'outcomes-based education' (OBE). According to Kraak (1999) there are three historical antecedents to the rise of OBE. Firstly, competency-based education and training became popular in South African industry after 1985. Secondly, the ANC and COSATU adopted the Australian and British outcomes models in their policy development work in the early 1990s. The third antecedent was the “resurrection of the radical rhetoric of People’s Education” (Kraak, 1999, p. 38) that had first emerged during the political struggles against Apartheid in South Africa in the mid-1980s. These three components merged together to form a “hybrid educational methodology … which politically has sought to go beyond the narrow cognitive confines of competency models by incorporating the progressive pedagogic principles of People’s Education” (Kraak, 1999, p. 38), that is a more democratic approach to education.

Spady (1993) defined the term 'outcomes-based' by describing an outcome as "a culminating demonstration of the entire range of learning experiences and capabilities that underlie it" (p. 5). He defined the word 'based' as "to direct, define, derive, determine, focus and organise what we do according to the substance and nature of the learning result that we want to have happen at the end" (Spady, 1993, p. 5). Thus, when the two words are used together they imply that the design and organisation of any learning will take place around the final intended learning demonstration. When designing in an outcomes-based paradigm, one begins with a framework and a set of expectations about the desired learning results. The curriculum is then organised around what is needed to achieve these results.

i A definition of OBE

Some definitions of OBE are provided below:

"Outcome-based education is billed as a 'new way of doing business' or a 'paradigm shift'" (Studying outcome-based education as a reform example, n.d., p. 1).

"Outcomes-based education (OBE) describes an educational process which is based on trying to achieve certain specified outcomes in terms of individual student learning. Thus, having decided what are the key things students should understand and be able to do or the qualities they should develop, both structures and curricula are designed to achieve those capabilities or qualities. Educational structures and curriculum are regarded as means not ends. If they do not do the job they are rethought" (Willis & Kissane, 1995, p. 1).

"OBE is a term used to imply that everything (curriculum design, planning, teaching, assessing, writing support materials) will be designed and organised around (based on) the intended learning outcomes at the end of a learning programme" (What Is An Outcome?, n.d., p. 1).

"Outcomes-based education focuses curriculum, instruction and measurement/assessment on the desired student outcomes; the knowledge, competencies, and qualities students should be able to demonstrate when they finish school" (Forte & Schurr, 1993, p. 10).

From the above definitions is it clear that OBE is education that is geared towards studenta being able to exhibit signs of having mastered valuable skills, knowledge or attitudes. The learning content is thus not structured around prescribed subject matter that students 'should learn' (Gultig, 1997).

Additional important principles of OBE are (Gultig, 1997):

- understanding the role of motivation in learning
- assessing and using a learner's prior learning
- considering learners' different learning styles
- understanding the nature of learning processes and developing a teaching-learning fit
- using collaborative / co-operative learning
- using problem-based learning
- assessing course and learner outcomes
- knowing how to use instructional technologies.

George (1997) described the implications of outcomes-based education as follows:

> These commitments mean that a significant consequence of curriculum development using 'outcomes' would have to be that of adopting a paradigm shift in the way we view education;

> in what we value in education, and rethinking our beliefs and practices in teaching, learning and assessment (p. 5).

Brandes and Ginnis (1986) claimed that student-centred methods have existed for at least two thousand years. An extensive paradigm shift in South Africa from a teacher-centred to learner-centred approach has only been made recently, according to the Department of Education (Lubisi, Parker & Wedekind, 1998). This shift in ideas requires significant changes in the way we think about education as well as the way we practice education. William G. Spady applied and extended the work of John Carroll (a scholar at Harvard University in the 1960s) and Benjamin Bloom (an American education researcher who worked from the late 1960s to the middle 1980s) to develop OBE into what it is known today. According to Spady (1993), these are the principles of OBE:

- *Ensure clarity of focus on outcomes of significance*. The starting point, focal point and ultimate goal of curriculum design and instruction is the outcome of significance that a learner must demonstrate. The curriculum, instruction, assessment and credentials must be well-aligned with and very clear about the criteria or intended learning result that the student must accomplish.
- *Provide expanded opportunity and support for learning success*. As student learning and aptitude rates differ between individuals, time should be used as a flexible resource. Students should thus be offered the opportunity to receive the necessary instruction and demonstrate their successful learning more than once.
- *Emphasise high expectations for all to succeed*. Students should be challenged by outcomes that are on a high level. All students should be expected to achieve these high performance level outcomes and be given credit when the achievement occurs; thus fundamentally OBE is about all students achieving success.
- *Design down from ultimate outcomes*. The fourth principle is based on the belief that the curriculum process should begin with explicitly stating the outcomes expected of schooling. The curriculum content and structures should then be planned to expand students' opportunities to achieve the stated outcomes (George, 1997, p. 3).

ii Forms of OBE

According to Potenza (2000), South Africa is implementing transformational OBE. This form of OBE can be distinguished from traditional and transitional OBE as follows (Spady, 1993):

- *Traditional OBE*. The existing curriculum content and structure remains constant, but the focus shifts to outcomes that are synonymous with traditional, content-based categories. Real life events or everyday experiences are not included in the outcomes. The conventional nature of the context in which learning takes place is not challenged. Traditional OBE does not address the concept of a holistic person; the main concern is with students' success in individual units or small segments.
- *Transitional OBE*. The successful student is emphasised in this form where success is defined as what students need to be competent once they have graduated. Skills such as critical thinking, problem-solving, and effective communication are included in curriculum and assessment design in

order to cultivate and integrate higher order competencies. The focus shifts from an emphasis on micro-outcomes (traditional OBE) to outcomes that are essential for success. With these exit outcomes, transitional OBE addresses the question: "What is most essential for our students to know, be able to do, and be like in order to be successful once they have graduated?" (Spady, 1993, p. 8). Two benefits of implementing transitional OBE is that higher order competencies needed in almost all life and learning settings are addressed, and while OBE is phased into the system, the challenge of re-structuring an entire curriculum and delivery structure can be postponed.

- *Transformational OBE*. This form of OBE is concerned solely with the success of students in a complex 21st century. Students are equipped with the knowledge, competence and orientations needed to meet the challenges and opportunities that they must face once they leave school, in other words, their life-long adaptive capacities. The curriculum helps young people to cope in the face of broad roles that they will have to fulfil. This is accomplished through complex tasks in real settings, relating directly to the reality of life. Transformational OBE requires a fundamental shift in educational paradigms especially in educational leadership, making policies, setting priorities, defining outcomes, designing curricula, instructional delivery, assessment and giving credentials, making decisions and implementing strategies.

The forms of OBE described above can be illustrated on the following continuum:

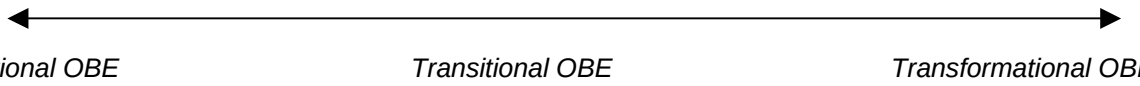

Figure 6 Continuum of different forms of OBE

Before examining how the paradigm shift from traditional to transformational OBE in teaching research methodology can be adopted, some terms within OBE are explored. Returning to the discussion of outcomes, it is necessary to describe the three types of educational outcomes applied in the South African OBE system: critical cross-field outcomes (broad outcomes), learning area outcomes and specific outcomes.

- Critical cross-field outcomes

These outcomes express the intended results of education and training in a broad sense. They are generic and cross-curricular, underpinning the learning process in all its facets. As such, these outcomes are generated across sectors of education and training in a process of consultation among stakeholders and are used to inform the formulation of specific outcomes in individual areas of learning for all learners at all levels on the NQF. A list of the eight critical cross-field outcomes – that include, but are not limited to these outcomes – that have been adopted by SAQA (South African Qualifications Authority, 2000) follows.

Learners must be able to:

- identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made
- work effectively with others as a member of a team, group, organisation, community
- organise and manage oneself and one's activities responsible and effectively
- collect, analyse, organise and critically evaluate information
- communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation
- use science and technology effectively and critically, showing responsibility towards the environment and health of others
- demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation
- contributing to the full personal development of each learner and the social and economic development of the society at large, by making it the underlying intention of any programme of learning to make an individual aware of the importance of:

    (a) reflecting on and exploring a variety of strategies to learn more effectively
    (b) participating as responsible citizens in the life of local national and global economies
    (c) being culturally and aesthetically sensitive across a range of social contexts
    (d) exploring education and career opportunities
    (e) developing entrepreneurial opportunities.

These outcomes are general and as such apply to all the learning areas (see below).

- Learning area outcomes

OBE endorses a holistic approach to learning content and as such replaces the traditional approach of teaching subjects in isolation from each other with an integration of learning content. Therefore, the new curriculum is developed on the basis of learning areas. Each learning area has broad outcomes (called learning area outcomes). They demonstrate the skills, abilities and values that a learner should demonstrate in the specific area. As this study is focused on the teaching of research methodology for the social sciences, the broad outcomes for the learning area 'human and social sciences' are listed below (Van der Horst & McDonald, 1997):

Students should be able to

- demonstrate a critical understanding of how South African society has changed and developed
- demonstrate a critical understanding of patterns of social development
- actively participate in promoting a just, democratic and equitable society
- make sound judgements about the development, utilisation and management of resources
- critically understand the role of technology in social development
- demonstrate an understanding of the interrelationships between society and the natural environment
- address social and environmental issues in order to promote development and social justice

- analyse forms and processes of organisations
- use a range of skills and techniques in the human and social sciences context.

- Specific outcomes

In contrast, specific outcomes express the results of more narrowly defined aspects of the education process, which are linked to a specific context. While they are informed by the critical cross-field outcomes they are formulated within the context they are needed in. The competence that learners should be able to demonstrate in specific contexts and particular areas of learning at certain levels are described. These are the outcomes that should form the basis of assessment of a learner's progress.

Specific outcomes are (Olivier, 1998):

- achievements that learners must demonstrate in a specific context in particular areas of learning at a specific level
- a comprehensive package of achievement that constitutes a learning programme that the learner must accomplish
- the basis for assessing how learners have progressed
- the basis for selecting subject matter that an outcome needs to be based on in order to be achieved
- the basis for choosing learning objectives and skills that will enable the learner to achieve the outcomes
- supportive towards the achievement of unit standards, credits and qualifications (together with assessment criteria).

It follows that if assessment is to be transparent, fair and effective, details concerning level of complexity, scope and learning context should be included in the formulation of specific outcomes.

iii Unit standards

Standards - a generic term for qualifications, unit standards and other standards - are regarded as specific descriptions of learning achievements that have been agreed on by major stakeholders in the particular area of learning (South African Qualifications Authority, 2002). Standards are repositories of knowledge about quality practice or competence[29]. Legitimate criteria for assessing such competence are also implied by standards. In other words, unit standards are registered statements of the desired outcomes that a learner must be able to demonstrate an understanding of or must be able to apply. The standards are agreed upon on a national level and are comparable to international statements. The assessment criteria, administrative and other information should be included with unit standards. Qualifications are built on these standards.

Although attempts have been made to generate unit standards for research methodology in the social sciences – such as the workshop hosted on the fourth of February 2000 by the Technikon South Africa's (TSA) Central Research Committee to compile a draft learning matrix – no final standards have been developed. Two important aspects that could contribute to future development were raised at the

[29] Competence is defined as the application of knowledge, skills and attitudes in a specific context.

workshop. Some of the participants felt that the standards should not situate the research process in the positivist paradigm that views the research process as linear. Ideological arguments against OBE as an education system were also made[30]. Another point of contention with generating standards is the lack of consensus among all stakeholders. At the workshop it seemed that there were as many opinions as participants and that at some point a negotiated and agreed-on document would need to be finalised for practical purposes. This process has, however, not been followed through. One of the further outcomes of this study could be a re-initiation of this task.

As OBE is a new methodology, course material and fields of study need to be rewritten on a large scale. At a tertiary level, there are difficulties facing this re-organisation of courses (Briston, 1998). According to Potenza (2000), curriculum reform discourse is usually framed in the language of radical political change. Any form of questioning the transformational system could be regarded as undermining the policies designed to transform education. Nonetheless, several academics and teachers in South Africa have raised concerns about OBE. These problems are discussed in the following section.

iv Criticisms of OBE

Some of the criticisms of implementing OBE at a tertiary level are the following (Briston, 1998):

- Many academics are of the opinion that OBE over-emphasises the process rather than the product. The assessment of a student at tertiary level should include subject knowledge as well as skills acquired.
- The majority of facilities at tertiary institutions are not physically suited to teach in from an OBE approach as they are geared for traditional lecture-style teaching.
- Some institutions are faced with the challenge of assisting with the implementation of OBE and they may feel obliged to teach in the same fashion to show loyalty.
- Some institutions argue that it is their duty to continue offering alternative schools of thought to their students.

Some general criticisms of (or limitations in) implementing new education policies in the form of OBE in South Africa have been outlined in Jansen (1997), Jansen (1998)[31], Kraak (1999), Van der Horst and McDonald (1997) and Venter (1998).

- The most fundamental criticism of OBE, according to Kraak, is its heavy reliance on behaviourist principles. The certainty that all individuals will act in the same predictable way under the same

[30] If the research process is seen as what it implies – a process – then separating the process into unit standards and determining individual outcomes for the standards defeats the purpose. This viewpoint is summarised by Ashworth and Saxton (1990) as follows:

> A cyclist never learns separately to incline the body, to turn the wheel, to press the pedals, and to judge the fall of the bike from the vertical; all this happens in a coordinated whole. A complex skill entails elements none of which can ever be defined independently of the rest. Any behaviour is a 'meaningful Gestalt'; a whole in which the individual elements affect each other in a manner that changes their nature. The elements of skill are not recognisable or separable from the complex whole (p. 12).

Steps in the research process form a complex whole. Creating unit standards and outcomes creates a disjointed structure of any process, which is one of the fundamental criticisms against OBE's basis on behaviourist principles.

[31] For a critical response to Jansen's arguments see Rasool (1999).

circumstances negates positive attributes such as imagination, creativity and innovation. If 'competence' is defined as a complex unity made up of smaller items of ability then, as Ashworth and Saxton (1990) argued, knowledge is being atomised and in this manner the learning process is being distorted.

- The reason why education policies fail (in general) is because the state is driven by political imperatives when declaring education policy leading to the exclusion of practical considerations. For example, more than 100 syllabi from the apartheid era were reviewed within three months by the new dispensation in South Africa. Superficial changes were made to some syllabi - while most remained unchanged - with no intervention to support these minor changes in the classrooms.
- The new curriculum (also known as *Curriculum 2005*) is very sophisticated and based on first-world assumptions of classrooms that are well resourced and teachers that are highly qualified. This curriculum is being implemented without the introduction of the necessary training and resources. Van der Horst and McDonald (1997) commented, however, that in South Africa where basic human needs such as housing and health facilities still need to be addressed on a large scale, the financial implications of OBE will need to be prioritised in terms of all the financial needs of the country.
- Most of the ministerial advisers and policy makers have little experience as teachers in schools, not knowing enough about classroom practices. This brings about a naïve belief that merely promulgating policy will result in change.
- Policy decisions regarding personnel in schools have angered teachers and parents alike as the number of teachers have been reduced based on ‘cold statistics’ without insight into the unique circumstances of each institution.
- Educational officials are performing their duties under heavy political and logistical pressure while crisis management is the order of the day. Educational policies arising from this situation are questionable.
- No political mechanisms are in place to ensure that state employed teachers meet their obligations to teach.
- The authorities are not encouraging critical debate over OBE. This is ironic as OBE is supposed to stimulate debate.
- OBE has been met with mixed feelings internationally thus posing the question of whether it is wise to repeat policies that have not been absolutely successful. In reply to the criticism of OBE by the media, concerned educators and parents in South Africa, Van der Horst and McDonald (1997) commented that uncertainty about what OBE actually entails is the “ideal breeding-ground for criticism” (p. 16).
- Outcomes are vaguely worded in curriculum documents which may actually result in teachers maintaining the *status quo* (content-based instruction) as teachers are not always able to translate these indistinctly worded outcomes into the practical teaching-learning activities with a specific content.
- Many outcomes do not focus on core academic content although “[a] sound content base is naturally always a prerequisite for critical thinking and problem solving which have been indicated as the heart of Outcome-Based Education and Curriculum 2005” (Van der Horst & McDonald, 1997, p. 16).

- In OBE it is automatically assumed that all students will succeed compared to the old system where students that were not good enough dropped out and only successful students succeeded. Venter (1998) disagreed with this idea, commenting as follows: "[n]ot all who did not pass dropped out – many actually tried harder and succeeded later" (p. 4). He goes on to say that "many of those who did leave school because they failed learnt a lesson in life – that, in the real world, some succeed and some fail: and the amount of effort one puts into things is a great determiner" (p. 4). The real problem, suggested by Venter, is that success eventually means nothing if one does not set a minimum standard of some sorts. Success then becomes relative to whatever anyone wants it to be; you can be excellent without having to do much to justify it.
- A false assumption people make is that all students, by nature, are willing to apply themselves. Venter (1998) argued, however, that extrinsic motivation - in the form of passing assessment criteria for example – is necessary.
- The abolition of a (norm-based) grading system in favour of a criterion-based system where there are no failures or bad results - options for poor work are an 'I' for 'incomplete' or 'insufficient' or an 'N' for 'not done yet' or 'not met standard' – defuncts the idea that competition between learners can serve as a motivator and results in the lowering of standards. Venter (1998) argued for the use of both criterion and norm-based tests. According to Kraak (1999, p. 47) "[a]ll assessment is subjective, and criterion-referenced assessment does not escape this problem".
- OBE allows for accessing individual learners on different days and in different ways in the assessment process. So-called common tests are thus abolished and replaced with individual tests for learners when teachers or learners think they are ready to be tested. This procedure does not take into account the administrative practicalities of individualised testing where learners are assessed at different times and in different ways.

In summary, these authors agree that not everything about OBE is good. Traditional education also had positive aspects and although it was not perfectly effective, OBE will also not be totally successful. According to Venter (1998, p. 5) "[m]any of the positive aspects of OBE can be achieved in non-OBE ways". Notwithstanding these challenges to implementing OBE, its principles of instruction need to examined for the value they can add when integrated with course content to achieve the paradigm shift needed in the teaching of research methodology. Ignoring the previous paradigm of transmission of knowledge is not advocated. On this point Venter (1998) stated that:

> [t]he simpleminded 'traditional is bad and OBE is good' is reminiscent of the fatally simplistic chants of Animal Farm. The result is that we are not likely to learn from the mistakes of others, to modify OBE in the light of the many objections which have been voiced overseas so as to produce an eclectic mixture of the best of the traditional approach and the best of OBE (p. 4).

Van der Horst and McDonald (1997) echoed these sentiments:

> Outcomes-Based Education should, however, not be regarded as a magical cure for all the educational ills of the present and past. Indeed, there is no perfect teaching strategy or method that is suitable to all teaching situations at all times … The effectiveness of OBE depends mainly not on the underlying principles of the approach, but rather on the teachers' abilities to implement such an approach since it requires hard work, a lot of planning and sensitivity to the learning process (p. 16).

According to Van der Horst and McDonald (1997), good teachers have been practising the principles of OBE for many years. OBE will therefore not require all-encompassing changes to educational practices. They recommended that what was effective in the old system be retained while at the same time teachers should be helped to adapt to the paradigm shift in teaching and learning. For example, learning content is rated highly by these authors as they stated that learners need a good foundation in the content of a subject in order to develop higher order thinking skills or problem-solving skills. It is, however, necessary to move beyond content for success to be attained in a curriculum. Teaching styles can be viewed on a continuum ranging from (Brandes & Ginnis, 1986):

Traditional (didactic) ◄——————————► Student-centred approaches (participatory, outcomes-based)

2.7 A meeting of two contexts

The two sections in this chapter are related in that they underline two different contexts in which under-graduate research methodology courses are constructed. The first context demonstrates different points of view about studying human behaviour that a course could communicate in relation to the various paradigms that the social sciences have progressed through in time. The researcher has thus argued that the beliefs held about research methodology by the individual who constructs the course are located in a specific framework and inform the content of the course. The second context describes current government policy concerning higher education in South Africa and the aspects of the approach of choice (outcomes-based education) that should inform the practices of academics when they construct research courses. The format of a research course is thus located in a double context consisting of the constructor of the course's own paradigm of research methodology and the policies governing the way in which this paradigm should be expressed as well as additional aspects that should be included in the curriculum.

This idea is illustrated in figure 7 where each context is place on a continuum. Two distinct paradigms that were highlighted in this chapter, modernism and post-modernism, are placed on one continuum, but there are many more schools of thought that have been described and are assumed to be part of this context. Mode 1 and Mode 2 research and teaching are located on another continuum. Over time these two contexts have co-existed and may intersect at any point.

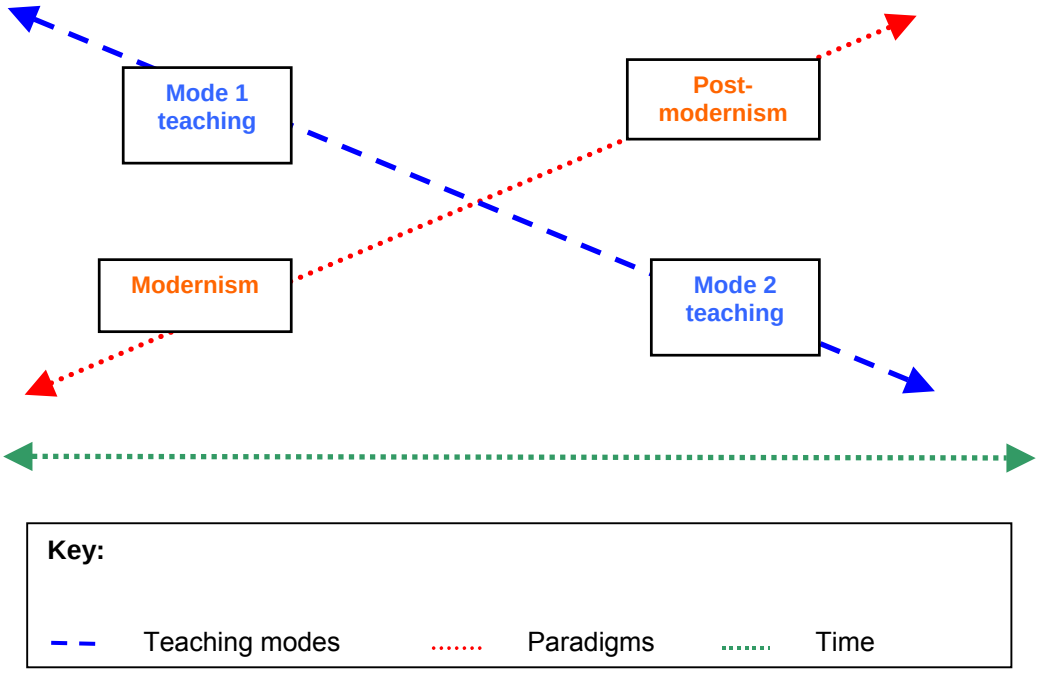

Figure 7 The intersection of two contexts

The manifestation of academics' adherence to these two contexts will be discussed briefly in the final chapter. The main aim of this study should be considered at all times, that is, an exploration of the content of under-graduate research courses and the beliefs that inform this content.

2.8 Conclusion

This chapter was divided into two main parts. In the first section, an overview of various paradigms in the social sciences was presented beginning with a description of the context in which psychology became a discipline in its own right and how the movements of positivism and idealism shaped its methods of inquiry. Particularly, views held on objectivity, subjectivity and value neutrality during the era referred to as modernism were explored. Positivism is upheld as the traditional approach to studying human behaviour. It was pointed out, however, that there has been a "proliferation of radically divergent philosophies and techniques" (Terre Blanche & Durrheim, 1999a, p. v) that rejects the way in which the modern era constituted and researched social reality. Some of these 'new paradigms' (naturalistic-ethnographic, phenomenological and cybernetic as well as post-modernism) were discussed. Implications of modernist and alternative paradigm thinking on the nature of research methodology, methods and the teaching thereof were also discussed. It is assumed that how we think and know has a profound influence on the way that we teach research although this must be seen as tendencies to act and not as a causal relationship. It was argued that a different viewpoint of research would be taught depending on which paradigm the person that constructed and/or teaches adheres to. Teaching research methodology from a traditional scientific linear paradigm focuses on methods and non-involvement of the

researcher while teaching within alternate research paradigms promotes students' reflections on the epistemological assumptions of paradigms and on their role in the research process.

The second part of the chapter concerned the context of education in South Africa where new policies and practices influencing higher education were explored. These policies and their extrapolations are heavily influenced by the worldwide trends of globalisation and massification that are placing different demands on higher education than before. Knowledge production is now said to have moved from a Mode 1 to a Mode 2 approach in which curricula are characterised by flexibility, trans-disciplinarity, problem solution, interdependence, and relevance to a specific context, and where they are funded from many sources. It is claimed though that this type of learning suits an economic agenda and if organisational education programmes become replacements or supplements for university qualifications the future of the university is threatened. A more varied approach to categorising research based on the work of Robson (1993) was presented followed by a discussion on the effects of Mode 2 learning on higher education policy and research in South Africa, focusing on structures such as the NQF and SAQA. A detailed description of the outcomes-based approach was presented to illustrate the requirements that an under-graduate research methodology course must meet in order to comply with the new paradigm in education. Many criticisms against OBE raised by international and specifically South African educationalists results in some suspicion of the effectiveness of this paradigm. It was argued, however, that it would be simplistic to reject all ideas associated with the old system and that a more moderate approach should be followed where there is place for both old and new paradigms.

For a theoretical framework for this study the researcher turns to critical social theory and particularly to the ontological position of critical realism. A discussion of this theory takes place in the chapter that follows.

CHAPTER 3: A CRITICAL THEORETICAL FRAMEWORK FOR SOCIAL SCIENCE RESEARCH

3.1 Introduction

In chapter 1 the background to this study was sketched. Four distinct factors that informed the scope of the study were described, namely, political choices in research training, personal (in)experience, the changing context of education in South Africa and past research on methodology courses in South Africa. The research question was finally delimited to 'What do the curricula of research methodology courses look like and what are the beliefs held by academics that inform the way in which they think they should or should not construct under-graduate research methodology courses?' The theoretical stance that was chosen as a framework for this study, critical theory, was briefly introduced. The aim of this chapter is to provide a more comprehensive discussion of critical theory. It begins with a brief section on the stages that Western philosophy has moved through according to Degenaar (1997). The final stage of this philosophy provides the impetus for choosing critical theory in this study. A history of critical theory is presented, together with an examination of three variants. The original form (the first variant and first generation) of critical theory became known as the Frankfurt school because of its location at the University of Frankfurt in Germany. It was principally driven by Adorno, Marcuse and Horkheimer. The second variant of critical theory was different from the first in that it proposed a more positive outlook where people were viewed as more active in determining their own destinies. One of Adorno's assistants, Jürgen Habermas, became an important figure at the Institute of Social Research, which was reconstituted in 1953 in Frankfurt after it had become fragmented due to the Second World War and consequent emigration to the United States of some of its proponents. Habermas's work is the third variant of critical theory and is considered to be the second generation of this movement. Although this historical background is provided under the umbrella of critical theory, Held (1980, p. 14) pointed out that "critical theory … does *not* form a unity; it does not mean the same thing to all its adherents" in that the two generations of critical theorists had differing views.

The discussion of the variants and generations of critical theory is left at this point to progress to a more current view of the tenets of this philosophy. This includes concepts such as power and hegemony, critical enlightenment and 'emancipation', the politics of knowledge and social disregard. A critical realist ontology informs this study, a position that proposes that there is an external, autonomous world that functions independently of scientific knowledge of the laws that cause natural events. Humans represent this world through social activity. An objective realm thus exists, that is a dimension that all people refer to, perhaps in multiple ways. When all the members of a group agree on a common understanding it becomes an intersubjective realm or shared world. Normative judgements are made of the shared world and are often expressed as what this world 'should' look like. The discussion of the epistemological claims of a critical theory concentrate on Habermas's (1974) three cognitive interests: empirical-analytic, historical hermeneutic and critical sciences. It is argued that a Habermasian approach to epistemology

would incorporate more than one of the cognitive interests and this leads into a presentation of different perspectives of methodology and method in a critical theory. A précis of a feminist viewpoint of social research concludes the section.

The chapter ends with a discussion on reflexivity. This is defined in multiple ways as the researcher's monitoring of the progress of the research in order to make necessary changes, a report of the role that the researcher's subjectivity played in the research, a facilitation of the audience's understanding of how the researchers reached their understanding of a phenomenon and/or re-creating the role of the respondents, their relationships to the researcher and the status of their accounts. Although reflexivity is viewed as essential to this research project, an important distinction is made between reflexivity and critical reflection. It is argued that, unlike reflexivity, critical reflection mobilises researchers to take action once they have realised what needs to be done to emancipate oppressed individuals from their situation. The conclusion of this study will thus encourage practical, implementable courses of action.

3.2 Beyond post-modernism

Degenaar (1997) distinguished between three different discourses that have existed in Western history: pre-modern, modern and post-modern. In pre-modern discourse, an individual did not engage in self-critical thinking in understanding the world. The language of the community (so-called 'primitive cultures') people belonged to structured the world for them; understanding was thus collective in nature. Modern discourse rejects the assumptions made by pre-modern cultures by striving towards a rational explanation of the world. Rationality is universally valid and thus the 'Truth' can be discovered about reality. In contrast, post-modernism is sceptical of a meta-narrative and therefore allows for many ways of understanding or "a diversity of modes of inquiry" (Mourad, 1997, p. 114).

Polkinghorne (1983) encouraged the post-modern belief in 'pluralistic epistemologies' where different systems of inquiry are located in a community of 'like-minded interpreters' who decide between knowledge claims:

> "Truth" is a construct which, under examination, reveals itself to be something like an onion; the layers of perspectival understanding can be peeled away until there is nothing left at the core. "Reality" is views; it is not a thing which lies behind views and causes them (p. 251).

Knowledge is thus a human construction as knowledge claims are evaluated within communities according to the standard that exists of what is acceptable as knowledge by that particular community. As the context within which systems of inquiry are positioned represent an epistemological position, Polkinghorne (1993) proposed epistemological pluralism where alternatives to one way of knowing are acknowledged and engaged with.

Degenaar (1997) suggested that there is a fourth kind of discourse, which he believed is the discourse we are currently engaged in. According to Degenaar, we are in a 'second reflection', which allows us to distinguish between pre-modern, modern and post-modern discourse. On reflecting on this distinction, it is assumed that we have the ability to reflect (critically) on the discourse we are engaged in at a particular time. The practical form that this fourth discourse might take is the best of each of the previous discourses "… while at the same time going beyond them, in order to take into account the patterning of social behaviour" (Porter, 2002, p. 59).

If we critically reflect on the way in which we do research before, during and after any undertaking, we are acting reflexively. (Parker [1999], however, makes an important distinction between reflexivity and critical reflection and this will be discussed in a later section). How do we know what our epistemological assumptions are and how they influence our perception of research? How can we attain the distance we need to comment on the forces that shape the research curricula we construct? How can we improve the current state of the curriculum through the discovery of these forces and take action based on our findings? Critical social theory is the paradigm of choice for this study as it gives the researcher the framework to answer some of the questions posed. From an ontological point of view the power of critical theory lies in its ability to move beyond the description and interpretation of individual behaviour without which, according to Porter (2002), an in-depth investigation into why certain phenomena occur would not be possible. In Carspecken's (1996, p. 6) opinion, "… critical theory has provided the most convincing answers to knotty epistemological questions begged in every act of inquiry" because it recognises the relationship between power and knowledge and does not allow power to corrupt truth claims. Also, critical theory best suits the researcher's own view of social reality and preference for methodological plurality.

3.3 Critical social theory: the emancipatory paradigm

As will be described below, critical social theory has its roots in a specialised research programme at the University of Frankfurt's Institute of Social Research (which became commonly known as the Frankfurt School). The context in which critical social theory arose was characterised by the domination of certain socio-economic classes over others and thus a movement developed to theorise about solutions to the oppression of the working class. Answers were sought in theories dealing with society and politics. Marxist theory, for example, was revised to render it more applicable to current conditions (Manias & Street, 2000). As Kincheloe and McLaren (2000) pointed out, however, "*[c]ritical theory* is a term that is often evoked and frequently misunderstood" (p. 279). The philosophers linked to the Frankfurt School did not present a common critical theory as can be seen from the different variants described below. It is with this in mind that the recognition must be made that there are several critical theories and thus it would be senseless to attempt to position critical theory as if it is forms one united approach today. As Honneth (1999) argued, the original tradition of the Frankfurt school no longer exists as a distinctive project and its philosophy needs to be revised in many ways. Yet there are principles of critical theory that appear across most current texts and it is these beliefs that will be used to describe the

underpinnings of the paradigmatic stance taken in this study. Some reconceptualisations of critical theory proposed by Kincheloe and McLaren (2000) will also be added and applied to this research.

3.3.1 A history of critical social theory

The history of critical theory is set out in this section following its development from its origin with the Frankfurt school in Germany. This variant of critical theory is known as the first generation of critical theory. Marcuse and Fromm, who became leading philosophical figures in the United States, propounded the second variant that became popular among alternative political movements and academics in the 1960s. The third variant and second generation developed in the initial context in which critical theory was shaped when Jürgen Habermas proposed his views on society.

3.3.1.1 Variant one: the original Frankfurt school and its move towards cultural pessimism

Critical social theory (also referred to as critical social science) originated in the late 1920s in what is known as the Frankfurt school, an independent interdisciplinary research school associated with the University of Frankfurt. The research programme undertaken at this school included knowledge from disciplines such as sociology, philosophy, psycho-analysis and economics. The principal proponents of critical theory include Adorno, Marcuse and Horkheimer, although Alvesson and Sköldberg (2000) provided a longer list (and readings) of social scientists linked to the Frankfurt school[1]. The works of Marx, Weber, Kant, Hegel and Freud motivated the original team of scientists to formulate a theory that would not only interpret the social world, but also transform it. Babbie and Mouton (2001) named Marx as the greatest inspiration for this task, but the social and political contexts that the advocates found themselves in was also a contributing factor. These influences included post-war World War I Germany that was suffering from an economic depression, dissent and strikes in Europe that marked a crisis in capitalism, and the rise of authoritarian styles of governance such as communism in the Soviet Union. Although Marx's influence was great, critical theorists found economic and social explanations for social phenomena inadequate. Research was thus focused on topics such as dominance and authoritarian relationships (Alvesson & Sköldberg, 2000; Kincheloe & McLaren, 2000).

Ten years after the establishment of the Frankfurt school, the Nazi occupation of Germany forced the Jewish members and adherents of Marxism to relocate to California. The nature of the American social sciences further shaped the ideas of critical theory as Horkheimer, Adorno and Marcuse felt it necessary to comment on the unquestioned use of empiricist research to study human behaviour, a methodology that critical theorists had abandoned after the first decade of their work (Alvesson & Sköldberg, 2000). They also criticised American culture as following a one-sided rationality, being over-commercialised and

[1] Held (1980) made a finer distinction, referring to the Frankfurt School as being specifically constituted by Horkheimer, Adorno, Marcuse, Lowenthal and Pollock, and the Institute of Social Research as being all the individuals associated with the Institute.

too eager to use science and technology to understand and control nature[2] (the aim of Enlightenment). This is known as the 'critique of instrumental reason'[3] (Theunissen, 1999).

Horkheimer[4] and Adorno viewed technological progress as evil, thereby breaking with Marx's theory that production and the development of technology would lead to the liberation of the working class (Roderick, 1986). Below is a lengthy description of this American 'counterculture', which Gellner (1996) called 'alright' but potentially 'dangerous' because the ease of achieving the life-style of this culture could lead one to take it for granted:

> As society gets richer and richer, the amount of time we spend, in serious work, in production, and in exploration of the world diminishes. There we have to behave ourselves according to the Enlightenment rules. The amount of time we spend in leisure goes up, and in the leisure zone, which is a kind of one big Disneyland, we do witness what might be called a Californiaization of culture, of which the late Paul Feyerabend made himself a prophet, where indeed anything goes and there are no constraints. So we are encouraged in this by our environment, which no longer has these Weberian qualities of requiring order and discipline (that goes for the work period); however, all the gadgets are made as intuitively accessible as possible, and people get used to the idea of a very user-friendly universe, in which you do what you fancy and it is alright (p. 82).

Furthermore, Horkheimer and Adorno claimed that the standardisation of people's needs, desires and wishes would make them open to manipulation and control and "turn the individual into an uncritical, passive object, well adapted to the logic of mass production and mass consumption which pervades all areas of society from the aesthetic to the political" (Alvesson & Sköldberg, 2000, p. 114). This inspired Adorno and Horkheimer's (1986) *Dialectic of Enlightenment* and Marcuse's (1964) *One Dimensional Man*. Also, although American society espoused equality among all people, discrimination on the basis of race and class was still prevalent (Kincheloe & McLaren, 2000). Critical theorists had thus become cultural pessimists and criticised the effects of rationality on society (Alvesson & Sköldberg, 2000).

3.3.1.2 Variant two: Constructive contributions from critical theory

The members of the Frankfurt school found that they were not as influential in the United States as they had originally been in Germany and this is perhaps why Kincheloe and McLaren (2000) reported Horkheimer and Adorno's return to Germany in 1953 to re-establish the Institute of Social Research. Also, Nazism had been defeated which meant that circumstances were once more favourable for the members of the school to return to their place of birth. Together with Marcuse another influential figure in critical theory, Erich Fromm, decided to remain in the United States. Both produced works that took on a more positive, optimistic tone compared to those of Adorno and Horkheimer. This marks a second

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[2] 'Nature' refers to external environments, society and the inner being of people (Roderick, 1986).

[3] The Frankfurt School defined 'instrumental reason' as follows: it is "the almost total political and administrative domination of social life through the increasingly efficient and predictable techniques developed and stabilised by institutions such as the military, the bureaucracy, the schools, business and, in particular, 'the culture industry' " (Roderick, 1986, p. 36).

variant of critical theory that is characterised by Marcuse's proposal that "there is renewed hope that social forces can be mobilized to question the dominant social logic, and that people can make themselves architects rather than victims of this logic" (Alvesson & Sköldberg, 2000, p. 114). People were thus seen as taking on a more active role in determining their own destinies. Resistance towards dominant ideals plays a key role in opposing the standardisation and control of society; students and alternative groups such as the feminists and environmentalists are examples of this questioning movement.

It was Fromm, however, in *The Sane Society* (1956) and *To Have or to Be?* (1976), who went a step further than Marcuse's critical reading of Freud to conclude that people are able to control their impulses and drives. As people have the power to make their own choices they have potentialities or "possible futures that can be accommodated by the present" (Willig, 1999, p. 40). People exist in a certain *Umwelt* or environment that allows or affords them certain things (Bhaskar, 1998a). For example, we can experience an urge towards just being or the need to have (to own and control something) which Fromm saw as an existential choice "powerfully influenced by the social and economic context which characterises the individual" (Alvesson & Sköldberg, 2000, p. 115). Yet Marcuse became a popular philosopher in his own right, revered by students in the 1960s for providing a space for people to recognise that they are able to determine their own potential by resisting and changing dominant institutions of power instead of remaining victims of an unjust society. The tenets of critical theory thus became the path to liberation though action and intervention and were adopted by the New Left, a movement that adopted critical theory as its political consciousness in the 1960s (Kincheloe & McLaren, 2000).

3.3.1.3 Variant three: Jürgen Habermas and the second generation of critical theory

Jürgen Habermas became involved in the reconstituted Frankfurt School when he became an assistant to Adorno. The variant of critical theory developed by Habermas in the 1950s is considered to be the third one (after that of the original Frankfurt school and Marcuse's and Fromm's versions). This formed the second generation of the Frankfurt research programme and allowed Habermas to become the most influential contributor to current critical theory (Alvesson & Sköldberg, 2000; Held, 1980; Honneth, 1999). An entire section of this discussion is dedicated to Habermas's contribution to critical theory for two reasons: (1) Habermas is considered to be a very important figure in the development of critical theory, and (2) Habermas's ideas on epistemology and methodology support the researcher's own viewpoints on the production of knowledge.

Habermas admired the ideas in Adorno and Horkheimer's *Dialectic of Enlightenment* and was sympathetic to Marxist theory ideals that sought a transformation of society away from the domination of elitist classes over the labour force. As Honneth (1999) noted, however, Habermas moved away from Marx's 'paradigm of production' to a 'paradigm of communication'. In this paradigm Habermas (1979)

[4] Initially, Horkheimer advocated technological control over nature so that society could plan the world in an organised and rational manner. He later rejected this thesis and sided with Adorno (Theunissen, 1999).

argued that as beings that have the need to communicate with each other we enter into dialogue in order to reach understanding (*Verständigung*) and consensus (*Einverständnis*). When people communicate with each other, however, there is also the potential of "expressing power and implying socially determined restrictions for the understanding of the social world" (Alvesson & Sköldberg, 2000, p. 118). Yet Habermas stated that at its best, communication should be based on the rationality of an argument. He referred to this as 'communicative rationality' where our expectation that four taken-for-granted aspects of communication are adhered to: our statements can be understood (are intelligible), they are perceived as true, they are legitimate (in terms of value systems held by the individuals in interaction), and people are being sincere with each other when in dialogue. Thus it is not power or expertise or science and technology that validate arguments for us; people are able to reach consensus in an open dialogue by questioning each other's viewpoints, justifying their own arguments or amending their assumptions (Habermas, 1979).

The idea of communicative rationality implies that it is important for people to communicate in order to reach agreement on whose viewpoint holds the most validity: "[t]he status of a claim of knowledge, experience or another basis for authority must be communicatively grounded" (Alvesson & Sköldberg, 2000, p. 119). Achieving consensus, by questioning the validity of our viewpoints and without capitulating to factors other than good arguments, is thus viewed as a positive action. Habermas thus argued that consensus based on communication would allow individuals to question, by means of critical inquiry, the assumptions they hold in common. Habermas was aware that this situation is ideal and that it seldom occurs. As Wedekind (1997) pointed out, Habermas was aware that achieving consensus is an 'ideal speech situation' that can be used as a basis to compare more realistic conversations that are usually not free of power relations. It is thus "this anticipation of an ideal form of discourse which can be used as a normative standard for a critique of distorted communication" (Held, 1980, p. 256). Habermas therefore put this belief forward as the basis of critical theory: if consensus is reached under circumstances such as domination, the communication is distorted and forms the basis of an ideology[5] that can be disputed through critical reflection. This will lead to emancipation, which allows people to rise above the disingenuous speech situation.

Rorty's (1979) perspective of what constitutes truth claims mirrors that of Habermas's as he claimed that truth is a 'victory in argument' within a group of conversing people and not a correct depiction of reality. Conversations take place within certain cultural contexts where 'normal' dialogue reflects taken-for-granted customs within the group (and therefore what is acceptable). Where he parts from Habermas, however, is in his encouragement of what he called 'abnormal' dialogue (ideas that diverge from cultural norms and lead to creativity). The implication of Rorty's claims for higher education is that dialogues based on abnormal ideas should be engaged in so that innovative knowledge is created (Mourad, 1997). These viewpoints are problematic, however, as both Rorty and Habermas seem to take for granted that by virtue of talking to each other people willingly express different standpoints or are able to critically examine their common practices. Although Habermas (1979) admitted that normative consensus does

[5] Ideology in this case is defined as "those belief systems which can maintain their legitimacy despite the fact that they could not be validated if subjected to rational discourse" (Schroyer cited in Held, 1980, p. 256).

occur (by a group not questioning their assumptions), it is difficult to prove that communicative consensus takes place (Alvesson & Sköldberg, 2000).

Habermas has thus been criticised for his theory on communication by authors such as Brown (1994) and Bubner (1982). Habermas had already realised some of the problems in his reasoning and revised his ideas on communicative consensus, for example, by acknowledging that sometimes people have to compromise, but retained the distinction between legitimate compromise (communicative) and illegitimate compromise (without consensual dialogue taking place) (White, 1988). Post-modernists such as Lyotard (1984) would concur with Rorty that multiple perspectives of the world should be supported. Deetz (1992) viewed conversation as a way of uncovering all the potential meanings that are raised during an exchange of ideas, which he believed would lead to critical self-reflection. Here too is the assumption that people are able to express their alternative view in all contexts or are able to question and move out of culturally accepted norms. In terms of the data collected for this study, concepts such as communicative rationality, normal and abnormal dialogues, legitimate and illegitimate compromise, expression of alternative viewpoints and critical self-reflection, amongst others, will be examined.

Besides Habermas's revision of certain elements of his theory on communication, new understandings of other principles of critical theory have developed. In the section that follows some of these trends will be presented.

3.3.2 Newest trends in critical theory

The descriptions above of the early beginnings of critical theory contain useful historical background, while the sections that follow will outline the theory's ontological, epistemological and methodological claims and requirements. Even though theorists such as Habermas revised certain aspects of their work, more recent advocates of critical theory such as Honneth (1999) and Kincheloe and McLaren (2000) provide some new and concrete implications of a criticalist perspective for research endeavours. Certain of these reconceptualisations could be applied to this study and so the most suitable are expanded on below.

3.3.2.1 Power and hegemony

Current critical theory rejects, as does Habermas, the traditional Marxist view that economic forces are the cause of all human suffering. Although economic issues do play a powerful role, people's lives are also shaped by other factors such as the domination of one race over another, or one gender over another and so on. As many of these forces as possible, in combination, should therefore be considered when undertaking a critical study. 'Power' in this study is defined in its oppressive role, that is its productive ability to bring about 'inequalities' and 'human suffering' (Kincheloe & McLaren, 2000). This type of power can be enforced through physical means, but in this case the social and psychological aspects are more important. Critical theory also sees power as interactive; it is therefore not who holds

power, but how power is manifested in relationships. According to Carspecken (1996), the following can be said of a critical perspective of power:

> Interactive power relations occur when actors are differentiated in terms of who has most say in determining the course of an interaction and whose definition of the interactive setting holds sway. Interactive power is greatest when differentiations of this type are determined without equal communicative inputs from all people involved (p. 129).

Carspecken further outlined four types of power, three of which will be briefly discussed as applicable to this study. The first type of power concerns what is termed 'normative power'. This occurs when figures in authority claim power because of their status position. There is thus a superior and a subordinate actor in this case. The superior actor does not need to provide any reasons for his or her speech or acts, which the subordinate is compelled to obey. For example, a lecturer will convey to a student what knowledge students should have about research methodology and the student accepts this as a natural situation because of the power position that the lecturer holds. The second type is 'coercive' in that the person with less power obeys the superior to avoid some kind of punishment or penalty. Students may therefore comply with what the lecturer says in order to avoid receiving bad marks or even failing the class. In the final case, power is manifested when one participant controls the outcome of the situation, usually not through reciprocal discussion, but through unspoken agreement. This is referred to as 'interactively established contracts' (Carspecken, 1996). There is usually an incentive involved for the student such as passing the course or receiving good marks for acting in accordance with what the lecturer wants.

According to Kincheloe and McLaren (2000), we need to examine how power is established in "social relations that are legitimated by their depiction as natural and inevitable" (p. 283). Societies, mainly through institutions such as schools, provide the space for acceptance of the dominant thoughts and practices (Popkewitz, 1990). According to Schubert (1986), curriculum language has revealed people as products of an assembly line who have to conform to 'the factory model of growth'. If students do not conform to this model, they are reshaped through control and obedience to authority. Images of control and domination prevail, which, it is argued, are against an emancipatory paradigm.

Kincheloe and McLaren (2000) admitted, however, that "all of us are hegemonized as our field of knowledge and understanding is structured by a limited exposure to competing definitions of the socio-political world" (p. 283). Although certain worldviews dominate due to these hegemonic power structures, there is also the implication that there are alternative ways of seeing the world. Thus, critical theorists reject the viewpoint that people are passive recipients ('victims') of and controlled by dominant external forces and recognise the multiplicity of ideas that struggle towards acknowledgement. This also means that not all members of the most powerful group agree on every aspect; sometimes less powerful groups become more dominant or there might be many negotiations for an axis of power. There is thus never totalised, eternal control of one group over another (Scheurich, 1997). Although the scope of this study does not extend to examining multiple sites of power relations between social actors, it is acknowledged

that a one-dimensional emphasis on domination of one group over another is not the only way of representing events.

3.3.2.2 Critical enlightenment and 'emancipation'

A research project using a critical approach could focus on how societal structures allow individuals or groups to struggle for power; there are thus winners and losers in this game. This study will examine the construction of under-graduate research methodology curricula to identify who gains and who loses in the way that it is shaped: "[p]rivileged groups … often have an interest in supporting the status quo to protect their advantages" (Kincheloe & McLaren, 2000, p. 281). The privileged group will be those who win by the way the curriculum is developed and the losers will be those who are prevented from taking important decisions that affect their lives. The second role of a reconceptualised critical theory would thus be to find a link between the winners' interests and how these interests prevent the losers from determining their own destinies. It is acknowledged, however, as described in section 3.3.2.1 that winners might become losers in certain situations and vice versa.

3.3.2.3 The politics of knowledge

'The politics of knowledge' is a term borrowed from Terre Blanche and Durrheim (1999a) and denotes the political agendas and interests that influence social science research. These authors discuss two contexts in which research is done: the context of justification and the context of discovery. The former refers to the correct use of scientific methods to come up with and answer research questions (referred to as instrumental or technical rationality by Kincheloe & McLaren [2000]) while the latter refers to the "researchers' private convictions about what kinds of questions are worthy of being asked, and their social ties to friends, social groups, political agendas and fellow researchers" (Terre Blanche & Durrheim, 1999b, p. 11). Critical theory renounces a methodolatory-only approach to research and encourages researchers to have "an understanding of the value choices always involved in the production of so-called facts" (Kincheloe & McLaren, 2000, p. 282). Popkewitz (1990), for example, provides an explication of how methodology and methods in educational research have a historical foundation and how studies have been carried out within certain social and political contexts. Some funding bodies in the USA and Australia support much research that is based on experimental designs (Young, 1990). The current researcher will thus have to describe how her work fits in with the context of discovery, or the 'larger political forces' (Terre Blanche & Durrheim, 1999b) that shape the research agendas in South Africa today.

3.3.2.4 Social disregard (Mißachtung)

Honneth's (1999) critique of Habermas's theory of communication is based on the assumption made by Habermas and Horkheimer that a group of people (the proletariat in Horkheimer's case) share a 'common, objective interest' in emancipating themselves from injustices that they suffer due to their membership of a certain socio-economic class. To put it simply, Honneth (1999) questioned whether it is possible to find proof of this pre-theoretical praxis – moral experiences of the group that have not been

"systematically articulated by theory at a more reflexive level in order to give its critique an objective foothold" (p. 326) – existing in everyday life. Honneth rejected Habermas's assertion that people's moral experiences are produced by the social and mental limitations placed on their ability to communicate and reach agreement (without the restrictions of power relations). The alternative approach Honneth opted for concerns social recognition and what occurs when people perceive moral injustices as occasions where they are disregarded. Hargreaves (1982) stated that

> First, the person must acquire competencies and a sense of making a valid and valuable contribution to the life of groups and institutions of which he or she is a member. Second, the person must have a sense of being valued by others in the groups or institutions of which he or she is a part. When these conditions do not obtain, a person will experience great difficulty in maintaining dignity… (p. 83).

This is referred to as 'social disrespect' or *Mißachtung*. What Honneth (1999) argued is that "… what must be considered first of all is the fact that there is an assumption of social recognition, which subjects connect with their normative expectations when entering communicative relationships" (p. 329). When people are disrespected in social interactions (by not receiving the recognition they feel they should) it affects their experience of who they are and results in emotional reactions towards the injustice. Furthermore, Honneth (1999) claimed that it is possible to find evidence of his theoretical model in pre-theoretical praxis, "which a critique of the relations of recognition can use to demonstrate its own basis in social reality" (p. 330). The concept of labour is also brought into this model as a means to achieve individual social esteem; if people feel that they make a significant contribution to the workplace then they will feel respected and recognised. This is not, however, a totalising view of labour as in Marxist theory: "[c]ertain zones of pre-theoretical critique become evident only to the extent that they are analysed in light of a concept of labour that also categorially encompasses the individual's dependence upon the social recognition of his or her own work" (Honneth, 1999, p. 334). Labour is not defined as being limited to formal employment, but includes, for example, women who stay at home to care for their children.

If Honneth's perspective is accepted, the implications of focusing on social esteem achieved through the successful contribution that individuals make to their workplace can be translated in this study as a need to examine how a course in research methodology furthers this goal. In other words: Are one of the aims of under-graduate research courses, when they are constructed, to create the space for students to achieve good esteem through the application of their knowledge in their workplace?

3.3.3 Ontological claims of a critical theory

One description of critical social theory is that it reflects on the taken-for-granted structures of socio-economic class and argues that the organisation of society should empower human beings to rise above the constraints placed on them by socio-economic class and its related ideologies that exercise control

over people (Schubert, 1983). This is referred to as the emancipatory[6] interest of critical theory, in other words, "through revealing systematic distortions in communication and action, [critical sciences] attempt to aid human beings in coming to awareness so that they can make history with 'will and consciousness' '' (Roderick, 1986, p. 57). Science – which includes social science – should be aimed at the liberation and emancipation of humans from 'the dominant culture' that is perceived as 'natural' and 'inviolable' (Kincheloe & McLaren, 2000). Critical social science serves to free people from alienation (alienation on an individual level through self-deception or on a societal level because of false consciousness). Humans frequently make mistakes in judging inaccuracies to be true. People are thus alienated from their true selves and from society. The alienating or repressive factors that sustain this alienation need to be transformed or changed through disciplined self-reflection (Mouton & Muller, 1997).

This description leads to the question 'What is the specific nature of reality (being) that critical theory espouses?' A realist ontology forms the basis for this study, specifically Roy Bhaskar's (1998b) transcendental realism (following Porter, 2002, it will be further referred to as critical realism). This position holds that the world is neither constructed by people (and therefore research should not focus only on individual consciousness) nor is it a case of events constantly coinciding (and therefore research should not focus only on finding the laws that govern these occurrences) (Porter, 2002). These positions reflect idealism and empiricism respectively. Rather, a third position is espoused based on the realist assertion that an external, autonomous world exists that functions independently of the knowledge that science has accumulated over time of the laws that cause events in nature (Bhaskar, 1998b)[7], hence the term 'realism'. This dimension is intransitive because the objects that constitute the events do not depend on the activity of humans: "… if there were no science there would still be a nature, and it is this nature which is investigated by science" (Bhaskar, 1998a, p. 21). Humans represent (not construct) this world through their thoughts, beliefs, emotions and crafted objects such as art (Churchland, 1985; Parker, 1999). Knowledge production is thus a social activity (Bhaskar, 1998a). A fundamental belief of critical realism is based on Kant's transcendental question (hence Bhaskar's use of the term 'transcendental realism'): "what must be the case, a priori, in order for events to occur as they do" (Porter, 2002, p. 60). The assumption is thus made that there are pre-existing structures that can explain, in terms of society, the way in which human consciousness and actions develop. As such, critical realists can attempt to identify these structures, but any claims about this type of knowledge are viewed as potentially fallible as they fall within the realm of empirical research or reflect "the arrogance of modernist meta-narration" as Porter (2002, p. 60) puts it. Thus, although critical realists and positivists both believe in an external reality, "the post-positivist critical realist believes that *the goal of science is to hold steadfastly to the goal of getting it right about reality, even though this goal can never be perfectly achieved*" (Trochim, 2001, p. 19).

Smith (1990) made the connection between critical theory and a realist ontology as follows:

[6] Kincheloe and McLaren (2000) highlighted the need to be careful of using terms related to the word 'emancipation'. As they pointed out "… no-one is ever completely emancipated from the sociopolitical context that has produced him or her" (p. 282) and it is arrogant to suggest that anyone is able to emancipate others.

[7] Although in earlier works Bhaskar (1989) stated that an analysis (based on realism) of societies could not take place in the same way as a realist analysis of nature, Benton (1985) argued that this was not necessarily true as social structures share some of the properties of the natural sciences. For a full discussion see Benton (1985).

> Critical theory acknowledges that there are real objects out there in the world, but the qualifier *modified* means one must fully recognize that the words used to denote objects must be placed within different symbolic fields, and, accordingly, reality can take on different meanings (p. 180).

The way in which the world is approached where various perspectives are imposed on it is discussed in the section that follows.

3.3.3.1 Objectivity

Carspecken (1996) makes an important distinction between objectivity and reality. What the term 'objectivity' signals for critical theorists is the existence of an 'objective realm' or category that people have a common understanding of and base their communication on. One specific object is thus being referred to without being concerned with whether the object really exists if it can be observed (empiricism) or whether it is constructed in the minds of members of a community (idealism). What is important to the critical researcher is to discover how individuals refer to an object and, if their descriptions are different, to find out in what way the truth claims are made and validated. For example, when talking about a prescribed text used in an under-graduate research methodology course, the objective realm is the book that both the interviewer and interviewee refer to. During the course of the interview, however, the researcher may discover that the interviewee has a different understanding of the book than that of the researcher's interpretations. Although there are multiple realities "… a single objective reality is referenced necessarily, and the description takes the form of *different appearances rendered through different interpretative schemes of the* same *reality*" (Carspecken, 1996, p. 68). Roderick (1986) alluded to this concept of objectivity in Habermas's work, namely that people do not construct different worlds, but that they approach one world with different perspectives. This is the "world of events or facts" according to Habermas (1984, p. 10). In critical theory terms, objectivity therefore does not signify the neutral, value-free position of the researcher (as in positivism), but indicates the shared universe that people refer to in their interactions.

3.3.3.2 Subjectivity

Critical social theory's view on subjectivity reforms the positivist notion that value positions in social research have to be avoided at all costs. As Manias and Street (2000, p. 52) stated, "[b]y targeting the interpretations of participants to generate knowledge, researchers acclaim the value of subjectivity in the research process". The emphasis is therefore on people's inner state such as their thoughts, feelings, drives and motivations (Smith, 1990). Carspecken (1996) further refined this description of subjectivity by distinguishing it from the multiple access that people have to an objective world; the subjective state of an individual is exclusively available to that person (hence the term 'privileged access'). A person can thus consciously (telling someone, for example) or unconsciously (showing physical signs of some emotion) give others access to their subjective state. We have to therefore rely on the sincerity of that person to validate the interpretation that we make of his or her subjective life-world as well as the extent

to which he or she has insight into that life-world. What remains important to the social researcher is to embrace people's subjective states as part of the research process and to recognise that there is a world open to multiple access that is mediated by these states. When a person "finds one's self … affirmed within a normative articulation that by nature is claimed for an entire group" (Carspecken, 1996, p. 144) this is referred to as intersubjectivity. People's values, beliefs and norms coincide and become a shared world. The normative judgements of the world that individuals share are an essential component of this study as it important to examine what norms academics share about under-graduate research methodology curriculum construction.

Once this shared world has been established by its members (in social settings and through discussion), they tend to believe in the correctness of their consensual view (Blake, 1997). Could it be, however, that this view (termed normative consensus by Habermas) is necessarily the best claim to truth? Habermas's (1987) idea of the radicalisation of argument holds that even though individuals participate in dialogues that ultimately bring them to share beliefs and reach a consensus that they are comfortable with, the validity of their beliefs could be debated. A group's intersubjectivity should therefore be open to review and discussion (Blake, 1997). The normative stance of the participants in this research should therefore be amenable to questioning.

3.3.3.3 Shared normative judgements

Besides the objective and subjective realms described above, Carspecken (1996) outlined a third world that mediates the truth claims we make. He calls this the normative-evaluative realm as it refers to the positions people take and the norms that they share about what acceptable, typical behaviour is within their group. The normative-evaluative world is determined by the values individuals hold (what is moral and ethical), which inform their norms about how they may act within the context. This is the concept of intersubjectivity referred to above, or 'our world'. Statements reflecting this world are expressed by including the word 'should' to indicate the rules that govern behaviour. A research project's methodology will be heavily influenced by the need to uncover and express normative-evaluative claims as "social regularities occur through the manner in which actors understand norms and values, claim them tacitly or explicitly in all interactions, and negotiate them when disputes arise" (Carspecken, 1996, p. 84). The methodology of this study was thus decided by the researcher's choice of which method would produce the best account and explanation of normative behaviour for the academics that construct under-graduate research methodology curricula, in other words, what does 'our' world look like, what should it look like (the normative-evaluative claims) and why does it appear this way?

3.3.3.4 Relativism

The modernist definition of relativism provided in chapter 2 is based on what Bhaskar (1998a) terms *judgemental relativism*, "which asserts that all beliefs are equally valid, in the sense that there can be no (rational) grounds for preferring one to another" (p. 236). In contrast, *epistemic relativity* acknowledges the social and historical context of knowledge production and makes a distinct choice for one belief or principle over another. Epistemic relativity is important to standpoint methodologies as it relates to the

'strong objectivity' called for by feminists such as Harding (1991). This type of objectivity denounces relativist arguments that all viewpoints are equal; this equivalence allows statements about oppression, for example, to be dismissed as relative to other ideas about the position of power that people hold. Scheurich (1997), however, criticised some of these theorists, such as Bernstein, for retaining some notions of traditional objectivity. Even though Bernstein (1983) was arguing against objectivity, he called for establishing procedures to determine which knowledge claims are better than others. Scheurich, a post-modernist, finds it difficult to believe that criteria of truth cannot themselves be relative to the historical conditions in which they are developed.

Critical theory's response to these perspectives can probably be found in its approach to the way in which claims made by a researcher are validated. According to Carspecken (1996, p. 57), "… a rule of thumb in critical epistemology could be phrased like this: whenever considering a truth claim, examine the validity conditions associated with it". The important ingredients in these conditions are communication and consensus reached within the group of people for which the researcher makes statements (the new definition of objectivity as discussed earlier). To this idea, Hoshmand (1999) added the aspect of experience that a researcher has gained in practice as a basis for evaluating the validity of assertions. A discussion of Rennie's (1999) call for three further elements to be added to the larger framework of a research project will be presented in chapter 4. The conditions surrounding truth claims are thus acknowledged within the context of the transcendental realist assumption that there is a universal reality that people have access to; as outlined above this reality is accessed in multiple ways. The methodology chapter illuminates two of the procedures used to achieve the form of validity that critical theory requires and their application to the qualitative part of the study: peer debriefing and member checks.

3.3.3.5 Value neutrality

Critical theorists reject the notion of the type of objective truth described in chapter 2. It is also argued that its corollary - that a researcher could be a disinterested party and therefore achieve value neutrality - is not possible because all knowledge is influenced by and arises in certain social and historical contexts (Nielsen, 1990; Popkewitz, 1990[8]). Carspecken (1996) noted, however, that "[c]ritical methodologists are not 'relativists'; we do not think that different cultures 'construct' entirely different worlds and thus entirely different 'truths' " (p. 57). Psychology has been guilty of not giving a sufficient voice to the assumptions and value-systems of researchers, thus ignoring the 'human context' in which research is practised and knowledge is produced (Hoshmand, 1999). Because of researchers' responsibility towards stakeholders (who should be involved in the process through discussions and debates), Hoshmand (1999) made the claim that psychology is a 'cultural science'. Hoshmand also pointed to the fact that research is located in a broader context or community such as an academic setting where qualitative researchers can discuss what criteria signify worthy practice. Following Heidegger's reasoning that "makes the individual *a part* of reality, rather than an ego dualistically separated from the world", Rennie

[8] Popkewitz provides an interesting description of the strategic way in which the social and political values expressed by social scientists were historically separated, by institutional leadership, from their roles as academics in order to guarantee employment opportunities and resources from the economic sector.

(1999, p. 6) placed the researcher's subjectivities firmly within the research process and emphasised the need for reflexivity (see section 3.4 for a discussion of reflexivity).

Based on the discussion in this section, this study subscribes to a transcendental realist, non-relativist approach while acknowledging the social, cultural and historical conditions that offer certain possibilities for action. A reality exists that participants have multiple access to; these individuals shape situations according to their subjective interpretation of that reality and the type of behaviour that is acceptable. It is therefore the purpose of this study to uncover, understand and explain these interpretations as well as provide recommendations for improving the current curricula of under-graduate research methodology courses.

3.3.4 Epistemological claims of a critical theory

This description of the epistemological claims made by critical theory leans heavily on Habermas's conceptualisations of knowledge production, or 'knowledge-constitutive interests' as he refers to it (Habermas, 1971). There may be many other formulations made by critical theorists, but Habermas's version has been chosen for the second reason mentioned in section 3.3.1.3. A brief outline of Habermas's (1971) argument for the three knowledge interests is provided here. The three-part classification has already been stated in section 3.1 and thus a more specific description follows later in this section with quotations from *Knowledge and Human Interests* (Habermas, 1971).

Habermas (1971) viewed the human race (as a unified people) in three ways: firstly as beings that need to produce materials - by manipulating and controlling nature - to survive, secondly as beings that need to communicate with each other using a commonly understood language within communities, and thirdly as beings that need "to act rationally, to be self-reflective and self-determining" (Roderick, 1986, p. 52). Habermas termed this the emancipatory interest, as humans want to be self-sufficient and accountable for their thoughts and actions. People are thus motivated to make knowledge that will allow them to pursue these interests. Habermas adds, however, that only species that is self-reflective, that is, humans, can achieve this production of knowledge (Dews, 1999).

From this line of argument, Habermas (1971, p. 308 - 310) identified the following cognitive interests:

- **Empirical-analytic** – in the empirical-analytic sciences the frame of reference that prejudges the meanings of possible statements establishes rules both for the construction of theories and for their critical testing. Theories comprise hypothetico-deductive connections of propositions, which permit the deduction of lawlike hypotheses with empirical content. The latter can be interpreted as statements about the covariance of observable events; given a set of initial conditions, they make predictions possible.

- **Historical hermeneutic** – the historical-hermeneutic sciences gain knowledge in a different methodological framework … Access to the facts is provided by the understanding of meaning, not observation. The verification of lawlike hypotheses in the empirical-analytic sciences has its counterpart here in the interpretation of texts. Thus the rules of hermeneutics determine the possible meaning of the validity of statements in the cultural sciences.
- **Critical sciences** – The systematic sciences of social action, that is economics, sociology and political science, have the goal, as do the empirical-analytic sciences, of producing nomological knowledge. A critical social science, however, will not remain satisfied with this. It is concerned with going beyond this goal to determine when theoretical statements grasp invariant regularities of social action as such and when they express ideologically frozen relations of dependence that can in principle be transformed. To the extent that this is the case, the critique of ideology, as well, moreover, as psychoanalysis, take into account that information about lawlike connections sets off a process of reflection in the consciousness of those who the laws are about. … The methodological framework that determines the meaning of the validity of critical positions of this category is established by the concept of self-reflection. The latter releases the subject from dependence on hypostatised powers. Self-reflection is determined by an emancipatory cognitive interest.

Hoshmand (1999) accused psychology of over-emphasising the empirical-analytic (or technical as she terms it) knowledge interest because psychology positions itself as a science in its disciplinary and professional roles. Yet Hoshmand stated that psychology could play a part in the hermeneutic and critical interests by understanding and explaining subjective experience and meaning as well as fulfilling emancipatory objectives. For Habermas (1988, p. 3), "… the natural and the cultural or hermeneutic sciences are capable of living in mutually indifferent, albeit more hostile than peaceful coexistence, [whereas] the social sciences must bear the tension of divergent approaches under one roof". Scheurich (1997) contended, however, that there is always a struggle for the dominance of one epistemology over another in the social sciences. Although Habermas singled out one methodology that would support the reflective nature of humans (see section 3.3.5), he argued for a pluralistic theoretical and methodological mode of inquiry, recognising that the various approaches have 'relative legitimacy' each with its own strengths and weaknesses. As "… [c]ritical theory does not seek to eliminate any possibly fruitful line of empirical research on theoretical grounds" (Bohman, 1999, p. 59), its task must be to bring different methods of enquiry together. From an epistemological point of view, critical theory would consent to both empirical-analytic and hermeneutic ways of knowing (Babbie & Mouton, 2001), although not all criticalists would agree with this (see Manias & Street, 2000). According to Fay (1975), however, the explanatory function of critical theory is its most essential contribution to the social sciences as theories should be able to explain "the sources and nature of discontent experienced by the social actors" (p. 97) as well as "demonstrate how it is that such discontent can be eliminated by removing the structural contradictions which underlie it" (Fay, 1975, p. 97).

Following Habermas's reasoning, this study views knowledge production as an amalgamation of each of the interests presented above to counter their particular limitations while drawing on each other's strengths. The methodology proposed for this research thus contains elements of the empirical-analytic, historical hermeneutic and critical sciences which will be expanded on in chapter 4. As a basis for this approach a broad overview of different perspectives on the methodology of critical theory is provided below.

3.3.5 Methodology and method in a critical theory: are there any rules?

Despite critical theory's objections to the methodology and methods traditionally used by social scientists, there are limited writings on alternatives (Alvesson & Sköldberg, 2000; Bhaskar & Lawson, 1998). However, as will be discussed in chapter 4, authors such as Alvesson and Sköldberg (2000) attempt to provide some guidelines or advocate their own version of a critical social theory methodology (Carspecken, 1996). There is, however, no unified approach. Willig (1999), for example, encouraged critical researchers to follow an action research methodology "which allows individuals to reflect upon the grounding of their actions in structures of meaning and to identify alternatives ways-of-being afforded by those structures" (p. 43). She advocated working qualitatively (collecting information on the subjective life experiences of research participants) and doing discourse analysis on the data. Muller (2000), however, pointed out his concerns with the action and participatory research approaches that critical researchers promote, noting Shaeffer's (1992) description that it is "a process fraught with difficulties, disappointments and unkept promises" (p. 10). Muller added to this by implying that it is arrogant on the part of critical researchers to assume that they are going to educate the members of a group about the error of their ways and that this will bring about the desired emancipation. Also, equalising the contributions of research participants does not diffuse power relationships or ensure that everyone is an equal partner around the negotiating table because unequal social relations are ever-present. Muller (2000) thus concluded that within a participatory approach, a critical position is still necessary to ensure that the relations between power and knowledge are acknowledged and that the pursuit of self-reflection is realised.

Manias and Street (2000) and Smith (1990) highlighted critical theory's elimination of positivist methods from its research practice. Although Carspecken (1996) admitted that there is some space for quantitative methods to be employed by critical researchers, he makes a strong case for using a qualitative and hermeneutic approach within a criticalist project. Hoshmand (1999) also located hermeneutics within a critical realist perspective and pointed to the centrality of interpretation in qualitative hermeneutic research. Ethnographic research can take a focal position although many of its methodological tenets are problematic (e.g. the power relations between researcher and researched) and should therefore be adapted or revised to better suit the critical paradigm (Porter, 2002). Manias and Street (2000) combined critical social theory assumptions with a Foucauldian analysis by using Foucault's toolbox metaphor, namely, selecting and adapting bits from each approach and being aware that tension may exist between the pieces that have been quilted together.

Kincheloe and McLaren (2000) also emphasised the importance of interpretation in critical research (thus calling it critical hermeneutic) by saying that "in qualitative research there is only interpretation, no matter how vociferously many researchers may argue that the facts speak for themselves" (p. 285). At the same time, Archer (1998) pointed out that accepting without question that understanding is possible through interpretation is problematic as "usually not all is revealed to consciousness and sometimes that is because it is shaped outside our conscious awareness" (p. 199). This is where critical theory contributes in its emancipatory capacity to identify the social conditions in which distorted beliefs are grounded. In other words, critical theory moves beyond meaning (hermeneutics) and cognition (consciousness). The act of revealing, by using a critical perspective, is reflected in Archer's (1998) assertion that "we do not uncover real social structures by interviewing people in-depth about them" (p. 199). Rather, the researcher has to follow a more subtle method than this.

Habermas's identification of three different knowledge interests allows critical theory to overcome the notion that the natural and social sciences are separate ontological categories each with its own epistemological approach (Bohman, 1999). For methodological guidelines Habermas turned to psycho-analysis (see Habermas, 1971) because of the essential role assumed by interpretation and self-reflection (Held, 1980; Roderick, 1986). Habermas (1974) viewed self-reflection as paramount for becoming aware of distortions in our social worlds and argued the following:

> Self-reflection brings to consciousness those determinates of a self-formative process of cultivation and self-formation (*bildung*) which ideologically determine a contemporary practice and conception of the world … (leading) to insight due to the fact that what has previously been unconscious is made conscious in a manner rich in consequences: analytic insight intervene in life (p. 22).

Roderick (1986) reported one interpretation of Habermas's work as implying that the critical theorist is 'the psychoanalyst of the working class'. Habermas was, however, severely criticised for using psycho-analytic principles[9] for the basis of a critical social science and later revised some aspects of his earlier work, such as the definition of self-reflection (see Roderick, 1986 for a full discussion). Theorists such as Brian Fay have attempted to give critical theory a more social and historical slant than Habermas's version (Babbie & Mouton, 2001). Popkewitz (1990) also called for locating methodology and methods in the historical context in which they are practised: "[h]istory becomes a part of the analysis and logic of a science as the researched, research, and researcher are interrelated" (p. 65). From Fay's statements on the explanatory role of critical theory (see section 3.3.4), a critical methodology should tie the subjective experiences of research participants to a theory of explanation and suggestions for how the lives of people can be improved by the use of the knowledge.

Given the diversity in opinions on what constitutes a critical approach to research, it will be necessary to find a position for this study where the researcher is comfortable and a position that can be related to the

tenets that critical theory hints at for research. The question is thus asked: 'Does the method fit?' A Habermasian approach to methodology, namely, pluralism is argued for in chapter 4.

3.3.6 Critical feminism

A brief word on feminism's contribution to alternative paradigms located within the critical tradition is necessary here to highlight other ways in which conducting research from a critical perspective could be conceptualised. This quote from Peplau and Conrad (1989) summarises the feminist viewpoint on conventional psychological research:

> … science has consistently given priority to the values of the white, middle-class men who have been its main practitioners. Historically, the sexist values and attitudes of society have biased the development of scientific psychology. Sexism has affected not only the selection of research topics and the development of psychological concepts and theories, but also the research methods used, the applications of psychology to therapy, and the structure of psychology as a profession (p. 383).

According to Hoshmand (1989, p. 3), "[r]esearch methodology, as taught in most graduate psychology programs, has been based on the positivistic tradition of reductive experimentation". This trend is visible in South African social research of the past that was dominated, up to the early 1990s, by experimental research designs (Mouton & Muller, 1997). Feminist authors such as Bozalek and Sunde (1993/4) attributed this state of affairs to the unequal distribution of power between genders in education. They found that their students' doubt about undertaking research stemmed from "the dominance of an educated male elite in South Africa (read: white, middle class), skilled in the quantitative methodological approach to research design" (p. 70). Terre Blanche and Durrheim (1999b) concurred that social research, in general, has been structured according to the conventions of a tradition practised by white males.

According to Neuman (2000), many feminist researchers tend to associate positivism with the male point of view (objective, logical, task-orientated and instrumental). Also, feminist researchers believe that males emphasise individual competition, attempt to dominate and control the environment and focus "on the hard facts and forces that act on the world" (Neuman, 2000, p. 82). According to Wilkinson (1988), well-established scholars with high status (read: white male) are in control of the legitimisation of new knowledge and the methods of inquiry. She described three ways in which the traditional or positivist empiricist paradigm operates to discriminate against women in traditional academic disciplines such as psychology[10]:

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[9] Kincheloe and McLaren (2000) have identified post-structuralist psycho-analysis as a new endeavour in critical theory where "critical researchers discern the unconscious processes that create resistance to progressive change and induce self-destructive behavior" (p. 282).

[10] For a detailed discussion of this topic and the ways in which discriminatory practices towards females in traditional academic disciplines can be changed read Wilkinson (1988).

- Control by definition (naming) – the positivist empiricist paradigm is defined as 'normal science' and research that does not conform to it is not valued or dismissed
- Handling 'deviance' – any research or researchers that deviate from the traditional paradigm are handled either by being ignored or being suppressed in some way
- Pretence of meritocracy – an illusion is created merit is judged objectively and that competence will result in some kind of advancement.

As some feminists have argued that women have different values or concerns to men, and that women are outsiders in a psychology created by men, it could be said that women might approach scientific inquiry differently from men and that this would influence the body of knowledge, the methods and procedures used in psychological research. The cultural heritage shared by the founders of modern science (white, upper middle-class men) has helped to sideline voices that do not belong to this group. The recent focus on these voices has resulted in an increased awareness of 'culture' (Vinden, 1999), so much so that Ratner (1997) called for psychology to view culture at the core of its identity. Peplau and Conrad (1989), however, questioned whether epistemological changes in psychology would naturally bring about changes in methods. Unger (1983) emphasised that it is not necessary to criticise techniques or experimentation or quantification, but rather "our unawareness of the epistemological commitments we make when we use such tools unthinkingly" (p. 15). To add further depth to this argument: "the research methods an investigator uses may have much more to do with the person's professional training, the topic of the research, or the methodological preferences of professional journals and funding agencies than with gender" (Peplau & Conrad, 1989, p. 392). In chapter 6 the debate will be developed on the basis of how some of these factors have played out in this study.

From this description it seems that gender is one of the personal characteristics of the researcher that has had a far-reaching effect on social research and the applications of findings to the field of psychology. Other aspects of the research context also contribute to the meaning that is made in the process and therefore the next section deals with a discussion of how the researcher should remain self-conscious during the time in which research is undertaken.

3.4 Reflexivity

The role of reflexivity in social research is the point of discussion in the final section of this chapter. Reflexivity is used unproblematically as a term that describes an essential part of any qualitative research performed today. As Parker (1999) pointed out, however, many researchers use reflexivity as if it is the ultimate solution to any difficulties experienced during the research. This section begins with some definitions of reflexivity. It closes with the distinction that critical theory makes between reflexivity and reflection, and places this study in a specific position regarding this difference.

3.4.1 Reflexivity defined

The recursive epistemology known as reflexivity has recently come to social research, as noted by Brannen and Edwards (1998), and is regarded as a post-modern practice (Lui & Lui, 1997). It is described by Steier (1995) as "a 'bending back on itself"' (p. 71). Mead (as cited in Steier, 1995) defined reflexivity as “turning back one's experience on oneself” (p. 71). According to Fonow and Cook (1991), reflexivity in research is the need to "reflect upon, examine critically, and explore analytically the nature of the research process" (p. 2). Wilkinson (1988) defined reflexivity as "disciplined self-reflection (i.e., the rigorous contemplation of one's academic navel, if you like, in order to assess its origin, nature, and activity – if any!)" (p. 493). Researchers thus continuously monitor the progress of the research and make modifications where necessary or report on their awareness of the role that subjectivity has played in the study. This is to facilitate the audience’s understanding of how researchers reached their understanding of a phenomenon (Rennie, 1995).

Reflexivity in the context of research is characterised by (Wilkinson, 1988):

- the belief that there is no fundamental difference between scientists (researchers) and the person they are studying: they are both constructing events
- the requirement that any psychological theory being developed by theorists (or researchers) must apply as much to the theorists as to the person(s) that they are investigating
- a reciprocal relationship between how life experience influences research and how research feeds back into life experience.

When researchers use reflexivity to make necessary changes in the research process as they progress, the process can be referred to as an emergent design because the project plan is not static or pre-determined. Sometimes, however, the original design does not work according to plan when implemented and amendments have to be made as the research unfolds. As was mentioned in chapter one, the current researcher began this study with an entirely different research question and upon reflection changed the direction of the research. The various types of reflexivity presented below contributed to this action.

3.4.2 Types of reflexivity

Many nuances have been given to the term reflexivity. Table 4 explores some of these descriptions: *endogenous* and *referential* reflexivity (May, 1998), *personal, functional* and *disciplinary* reflexivity (Wilkinson, 1988).

Table 4 A description of the different meanings of reflexivity

Type of reflexivity	***Description***
Endogenous	The actions of members of a community contribute to the constitution of social

	reality, i.e. the methods of the people who are subjects of social research. This type of reflexivity includes the life-worlds of social scientific communities in terms of the way that they construct the topics they investigate and conduct these investigations.
Referential	This examines the consequences of the meeting between the reflexivity exhibited by the subjects of social research and that exhibited by the researcher who is part of the scientific community.
Personal	This refers to the researcher's own identity as a person. Researchers' work is often an expression of their own values and interests; the topic of study that we choose is often a reflection of something that concerns us personally. The focus is thus on researchers and the way in which they influence the research process.

… / continued

Functional	Here we examine how, for example, the choice of methods and the way we interpret our data is shaped by who we are as individuals. Also, this refers to how our choice of method influences the knowledge we construct when doing research. A continuous analysis needs to be made of the practice and process of research so that we can reveal its assumptions, values and biases.
Disciplinary	This entails a self-awareness of a discipline's nature and the influence of the form it takes on the generation of knowledge and methods of inquiry.

These types of reflexivity suggest that there are two parties: researchers with their identity, disciplinary characteristics and methodological preferences, and the researched who contribute to and reflect on their own life-worlds. Also pointed to is the possibility that both the participants in the research and the researcher may experience an overlap in consciousness (referential reflexivity). Reflexivity can thus be both individual and take place in groups. May (1998) argued that in the history of calls for reflexivity in social sciences, endogenous has been emphasised over referential reflexivity. This has occurred through an over-emphasis on the process of social research compared to what is learnt about social relations. May thus places reflection on the relationship between researcher and researched in a more important light than the research process itself. The influence of the two important role-players in the research process will be discussed in the section that follows: the researcher's role in constructing the research process as well as the role of reflexivity in re-creating the role of respondents.

3.4.3 The researcher's role in constructing the research process and the role of reflexivity in re-creating the role of respondents

The 'reflexive turn' examined above emphasises the researcher's role in constructing the research process and the results of research. The method by which data are captured is constructed by the epistemological distinctions drawn by the researcher: "[t]he observer's observations may include his observing" (Keeney, 1983, p. 32). In most cases researchers decide on the research topic, what questions will be asked, how they go about asking the questions, who will be approached for answers and what will be done with the answers. According to Thompson (1995), reflexivity includes more than the awareness of the researchers' involvement in creating the behaviour that they are studying. Thompson (1995) listed the following additional aspects:

- The researchers' sense of their research field
- How researchers express this awareness in their research actions
- The way in which these actions contribute to the behaviour researchers want to study
- How the observations of behaviour consequently have an effect on researchers' sense of their research field.

May (1998) argued that we should not only reflect on the part we play in the research process, but also on what happens when we meet with our subjects. Fielding (1996) had the following to say about the researcher-subject(s) interaction:

> This is the most dynamic exchange and it should be recognised that it is a two-way process: The researcher bears upon the subject/s … and the subject's responses qualitatively affect the researcher who, in turn, may modify the on-going research procedure (p. 13).

Kvale (1996) stated, however, that when a researcher collects data through face-to-face interviews, "[t]he interviewee's statements are not collected – they are coauthored by the interviewer" (p. 183). The interviewer guides the course of the conversation by formulating specific questions, listening actively and following up on the answers given by the interviewee. The interviewer and interviewee thus co-construct the interview. Kvale (1996) warned that

> [t]here is a tendency to take the results of a social interaction, when first arrived at, as a given, forgetting the original discourse and the social co-construction of the final outcomes. Such a reification may be strengthened by the transcription of the interviews; the fixated written form takes over and the original face-to-face interaction of the interview situation fades away (p. 183).

Also, feminist social scientists emphasise the effect of the demographic and personal characteristics of the researcher on the data that is elicited from a respondent. The human attributes that the researcher and respondent share should be recognised and included in the description of the study (Eagle et al., 1999). If the interviewer's role in co-constructing the interview is forgotten, the danger exists that the answers may be viewed as only reflecting the interviewee and "the role of the interviewer as a coproducer and a coauthor of the interview, and of reflecting on the social constitution of the interview, is

then overlooked" (Kvale, 1996, p. 183). This is in contrast to the modernist view of the researcher as an objective, value-free and neutral scientist. One post-modernist perspective doubts, however, the accuracy of stating that meaning is co-produced (Scheurich, 1997). This will be discussed in more depth in chapter 4 where its implications for the interviews conducted in this study are explored.

Reflexivity also plays a role in re-creating the role of the respondents, their relationship to the researcher and the status of their accounts (Burr, 1995). Reflexivity draws attention to the fact that when someone gives an account it is at the same time a description of the event *and* part of the event. These ideas can be compared to Collins's (1999) description of a researcher in a traditional research context:

> In traditional research, all the steps in the research plan are decided by the researcher. People providing the data are essential to the plan. Without them there would be no data. Their contributions are, however, structured by what the researcher asks them to do, or observes them doing. The researcher then interprets the meaning of the contribution. There is thus a separation between the roles of the researcher as expert knower, and the subjects of the research, as suppliers of knowledge. The experience of the subject, while being researched is irrelevant to the purpose of research (p. 4).

"*People providing the data are essential to the plan. Without them there would be no data*" illustrates the importance of the research participants. Gergen and Gergen (1991) stated emphatically that "[i]n no case can one separate what is 'subject' from 'object', 'knower' from 'known' " (p. 77). In other words, the researcher and the research participant are intimately connected and this relationship should be reflected on and reported about in the research project. This points to critical theory's stance that power relations in social research exist and that it is not possible to artificially rearrange these dynamics. Wedekind (1997) had this to say about power in South African social research:

> The power relations that exist between (for example) a young white, male, English-speaking, university-based fieldworker and a middle-aged African, female, college-trained, Zulu-speaking teacher cannot be simply overcome by a commitment to equality on either's part (p. 346).

The current researcher did not have totalising power over the researched by virtue of her status as researcher. However, sensitivity towards issues such as the position of interviewees in the academic hierarchy and how this structured the relationship had to be maintained. The researcher was thus not an equal partner in all of the interview situations. In agreement with Scheurich's (1997) post-modern viewpoint, there are times in an interview when one party is more active or passive than another and where differences in clarity occur during and across interviews. Co-authoring an interview is contingent on a range of complex issues.

The chapter that outlines the research design (chapter 4) points out that research of a critical theoretical nature underemphasises the role of empirical material in the process. Empirical material, for the

purposes of this study, is defined as data that is generated by fixed or formalised research procedures, but should not be viewed as "the search for truth" or as "depicting narrow segments of existing 'reality' " (Alvesson & Sköldberg, 2000, p. 276). Although the researcher argues for the use of data collected through empirical methods in this study, some examples of the type of reflexivity encouraged by a critical approach will be expanded on in chapter 6. This includes, but is not limited to, the researcher's "knowledge about society contingent upon societal membership, and reflective critical observations and impressions of social phenomena that one encounters or is actively participating in" (Alvesson & Sköldberg, 2000, p. 258). The researcher thus needs a thorough understanding of the context in which the phenomenon occurs in order to place less emphasis on the material itself.

3.4.4 Reflexivity or critical reflection? Action through praxis

There is an important distinction to be made between reflexivity and critical reflection. Keeping to the definitions and descriptions of reflexivity presented in sections 3.4.1, 3.4.2 and 3.4.3 "threatens to lead us into a spiral of self-questioning that prevents us from taking a position … instead of doing something practical and critical with [our findings]" (Parker, 1999, p. 29). Parker does not advocate the route of critical reflection, however, and calls for a reflexivity that is individual (to the researcher) as well as relational, in other words, "how the subjectivity of the researcher affects and interconnects with that of the researched" (Parker, 1999, p. 32). A relational approach is termed referential reflexivity (see section 3.4.2). In contrast, critical reflection mobilises researchers to take action once they have identified the structures that oppress individuals.

For Freire (1970), awareness for action involves the route of praxis. McWhinney (1997) defined 'praxis' by contrasting it with its near homonym 'practice'. Although praxis and practice sound similar, their Greek roots show otherwise. 'Practice' originates from the word *prakteos* (meaning 'to be doing') while 'praxis' is from the word *prasso* (meaning 'to pass through as on a journey' to successfully achieve some goal or end result). Practice is therefore concerned with "a habitual and systematic process of doing" and it "follows an implicit set of rules or theories" (McWhinney, 1997, p. 80). A certain programme is followed, but not necessarily to achieve a goal. Praxis, in contrast, focuses on achieving a goal, but not within the set of rules that limit behaviour as in the case of practice. Praxis therefore transcends theory and practice by "getting results beyond those available within a single domain of work" (McWhinney, 1997, p. 80).

The paradigm of critical praxis is derived from movements such as existentialism, phenomenology, critical theory and personal theorising (Schubert, 1986). Vinden (1999) noted that due to the origin of praxis in the work of Marx and Engels, it may add a Marxist flavour to the theories of some its advocates. Ratner

(1997), for example, claimed that researchers fail to include concrete social activity into their research; his view being that practical social activity is what psychological phenomena arise from and as such have a concrete social character. According to Schubert (1986), critical praxis is a reflection on what it means to be involved in worthwhile experience and how this experience can be pursued when social justice faces certain constraints.

Critical social theory aims to transform unequal power relationships, and thereby improve people's lives, through a specific route of action for change (Fay, 1987; Giroux & McLaren, 1989; McLaren, 1992). This transformation takes place through self-reflection[11] (Bernstein, 1978), but in this study it is not oppressed individuals who will be provided with knowledge to reflect on the ways in which they are dominated and to benefit directly from this knowledge. It is the task of the researcher to gather information about the context in which the practices that interest this study take place and to reflect on the structures of these activities with the aim of suggesting changes where necessary. Praxis will therefore be defined for this study as setting a social goal where some form of action can be taken arising from the critical analysis of how under-graduate research methodology curricula are constructed.

The researcher as critical practitioner should, however, not be accepted unproblematically. The reasons for this are twofold. In the first instance, following Habermas's link between psychoanalysis and critical theory, Wedekind (1997) pointed out that self-analysis is virtually impossible according to psychoanalytic viewpoints. Wedekind's (1997) solution is to turn to an outsider "… particularly a trained person, [who] may be able to pick up interesting or problematic aspects of the practice which the practitioner, …, has not noticed and will therefore not address" (p. 346) which relates to the second problem. The researcher in this study is supposedly the third party, but is herself an insider in an academic institution where relationships between students and lecturers, lecturers and lecturers, lecturers and the wider academic community, and so on are structured in a specific way. The researcher's ability to critically reflect on the research as an insider attempting to position herself as an outsider can therefore be questioned. Perhaps there are methodological solutions to this dilemma. These and other issues will be reflected on the methodology chapter.

To summarise the discussions in this chapter, there are two aspects of critical theory that are essential to this study. In accordance with Popkewitz (1991), these are:

- "To challenge the present as self-evident and undisputed, considering that the seeming inevitability of the present is historically constructed" (p. 231).
- To examine inequality in society and provide "practical solutions by which to contest these inequities through the production of particular courses of action" (p. 230).

The contributions of critical theory to this study are thus twofold. Firstly, critical theory provides a framework for reflecting on the situation that is taken-for-granted, namely, the content of research

methodology courses and the representations of the academics as constructors of the various curricula. Secondly, critical theory encourages proposals for specific actions that might ameliorate the current situation.

3.5 Conclusion

In this chapter it was argued that a critical theoretical approach transcends the alternative paradigms outlined in chapter 2 and that it was chosen for this study as it fits with the researcher's personal viewpoints on the nature of being and does not force the researcher to choose certain research methods above others (as will be discussed in chapter 4). Critical theory was consequently discussed in terms of its history, its newest trends and its ontological and epistemological claims. A transcendental realist ontology is subscribed to with an emphasis on the objective, subjective and normative-evaluative worlds outlined in Habermas's theory of communicative action and further refined by Carspecken. A Habermasian position of epistemological plurality is adhered to, although not all proponents of critical theory are in favour of such an approach. On a methodological level it was stated that there is a lack of a cohesive structure for how to conduct research within a criticalist perspective. A methodology would therefore have to be suggested that would be compatible with critical theory, that would answer the research question and that would be consistent with the researcher's own beliefs. The importance of providing a reflexive account of the research process and identifying a goal for social action concluded this chapter.

The next chapter outlines the methodology beginning with a discussion of the implications of the tenets of critical theory for the research design. It seems from the deliberations that were presented in this chapter that the researcher needs to describe methods that will define the objective realm contained in the research question, namely what is the content of under-graduate research methodology curricula? These methods should also define the subjective and normative-evaluative realms, namely, how is this content represented and how should it be represented? The chapter is thus divided into two sections, each dealing with ways of gathering data to answer two different research questions, the first being 'What is the content of under-graduate research courses in the social sciences, and the second being 'What are the beliefs held by some of the academics who construct and/or teach these courses?'

[11] For Habermas self-reflection is not action-orientated. It is, rather "analytic insights [that] intervene in life …" (Habermas, 1974, p. 23). These insights lead to changes in practice, not just a self-awareness of how particular knowledge was gained. For practical purposes, however, the term critical reflection will be used in this study.

CHAPTER 4: RESEARCH DESIGN

4.1 Introduction

The preceding chapters have focused on aspects that frame under-graduate research methodology courses in South Africa and the theoretical standpoint that informs this study. Chapter 2, which addressed the influences of ontology and epistemology on research methodology and its teaching, offered a succinct description of analogous and divergent views that have been proposed by theorists on the conception of what research is and how it should be taught. Besides outlining issues relevant to the paradigmatic place that research methodology in the social sciences finds itself in today, the chapter framed the transmission of knowledge in society and how the South African education system is implementing outcomes-based education in particular to achieve its educational goals. Chapter 3 discussed the main tenets of a critical theory that are applicable to this study beginning with a brief history of its origins and providing descriptions of more recent conceptualisations of its underpinnings.

This chapter provides a research design for extending the theoretical reasoning of the previous chapter into a practical project that will explore the content of under-graduate research methodology courses at tertiary institutions (specifically universities) in South Africa and the beliefs about them held by the lecturers who construct the courses. Although the research is embedded in the South African context, the universal appeal of the project is reflected in the interest expressed, by teachers of research methodology from various countries, in some of the preliminary findings, presented at the *Fifth International Conference on Social Science Methodology* held in Cologne, Germany in October 2000 (Wagner & Maree, 2000). To achieve the aims expressed in this study, chapter three is divided into four parts. Each part of the chapter is presented as a separate unit; the information in the separate sections will be integrated in consequent chapters.

The first part consists of an academic discussion on a methodology for critical theory. As stated in Chapter 1, different methods were used to collect, analyse and interpret the data in this study. Some of the data were collected using a quantitative method whereas interviews were conducted to collect qualitative data. More will be said about this in section 4.3. Part two is devoted to the design for examining the content of research methodology courses. A description is provided of how the data was collected in four phases. The search for information was driven by the researcher's belief that students are given specific messages about social research from different sources. One of these sources, the prescribed text, will be used to explore the content of courses. Once the data had been gathered, Huberman and Miles's (1994) interactive model was applied on three levels of complexity. Strauss and Corbin's (1994) idea of a conditional matrix is introduced to display the data. Some of the conclusions drawn from these displays are used as suggestions for questions that the researcher would ask in the second phase of the study. The third section of this chapter examines another source of information that informs the curriculum of research courses: the instructor of a methods course. It describes how the researcher framed an approach to interviewing the lecturers who construct some of the courses. Some

points that are made by critical theorists about interviewing are raised within the context of other approaches such as positivism, feminism, interpretivism and post-modernism. Two methods of interviewing are discussed: face-to-face and e-mail. Analysis of the interview texts in a criticalist way is also examined. It is argued that for the analysis of data, critical theory makes use of a triple hermeneutic approach that lies on a critical-political level. A critical hermeneutic method of data analysis is thus described. The chapter is concluded with a section that deals with ensuring that the interview data is reliable and valid.

4.2 Critical theory: implications for research

According to Alvesson and Sköldberg (2000, p. 143), "[c]ritical theory draws the attention to the political dimension of research". Neutral and objective research is not possible in the social sciences; rather, researchers, through their research, will focus on certain interests and favour or disfavour them. Dominant or elite groups are usually portrayed in research and obvious connections can be found between science and the interests that these groups represent. Critical theory is, however, more concerned with "the way in which dominant institutions and ideologies are uncritically taken for granted and reproduced in research" (Alvesson & Sköldberg, 2000, p. 143). Researchers often take for granted phenomena that occur in the society of which they are a part and in doing so they unconsciously transfer the fundamental values of the society. In this study, for example, the researcher could have asked 'How can we better convey the research methodology curriculum to under-graduates?' without questioning where the curriculum came from and why it is structured in a certain way. Asking the first type of question would have perpetuated the taken-for-grantedness of existing curricula: "[i]t is a question of learning to maintain restraint in regarding social conditions and dominant modes of thought as natural, neutral and rational" (Alvesson & Sköldberg, 2000, p. 144). The content of the under-graduate research curricula surveyed for this study will not be accepted as natural (as a phenomenon that occurs without a social and historical context, taken-for-granted), neutral (not promoting certain interests or political views) or rational (produced only through deliberate, conscious thoughts for a specific purpose).

Part one of this research is based on empirical material collected by the researcher. Although critical social theory tends not to prioritise empirical studies, Alvesson and Sköldberg (2000) permit a version where comprehensive empirical material is given cardinal importance[1]. In this version the researcher works in a traditional way, but interprets the data from a critical perspective looking especially at the domination versus emancipation context. It is therefore assumed that there is a dominant perspective with an asymmetry of power relationships that needs to be described. The earlier critical theorists (1970s) totalised the asymmetries of power but the later theorists (1980s) revised this view to include the importance of resistance as equally significant (Scheurich, 1997). Part one of the research is located in the conventional research approach of accurately representing reality, in this case the content of under-

[1] The reason that critical theorists do not make use of material based on original research could be based on Habermas' contention that the processes of critical reflection and criticism are paramount to achieving emancipation. Held (1980) interpreted Habermas' later work as revealing the need for investigating "discourse about statements that make problematic truth claims and discourse about the rightness or correctness of norms" (p. 257). This study will therefore use statements made in interviews as the basis for reflection and criticism.

graduate research methodology courses. The focus will thus be on an empirical description of this content while balancing it with a critical search for patterns of dominance and resistance. In order to avoid focussing only on what Thomas (1993) terms 'professional technique' (equated with methodolatory research as defined in chapter 2) and the authority of the researcher, he suggests using the following elements of critical research: accentuating the aspects of culture that repress and constrain, choosing subject matter or focus that involves injustices or control, regarding data and information with scepticism, avoiding established patterns of thinking about phenomena, considering language in terms of power, reflecting on the research process, the effect of the researcher's involvement in the research and the broader relevance of the research. The question 'so what?' can be asked to ascertain this relevance.

The need for including the political dimension in research using a critical framework is evident from the arguments in chapter 3 about the assumptions of critical social theory. Some research may reinforce established institutions and ideologies or it may question and challenge the assumptions. If taken-for-granted, established ways of thinking about research methodology are to be challenged it is also necessary to think about the influence that the results will have. Traditional research would avoid this position by highlighting its neutrality and objectivity in the research context. As Alvesson and Sköldberg (2000) argued, however, "[r]esearchers are themselves prisoners of their own society and its taken-for-granted concepts, thus helping to reproduce the status quo" (p. 129). Researchers thus unconsciously contribute to reinforcing the patterns. One role for critical theory, in these authors' opinion, is to counteract this unconscious reproduction of established patterns of thought that society holds over our thoughts. They name this the 'minimal version of critical research' as its emancipatory aim is nominal: instead of trying to overcome some type of dominance, researchers do not allow their research to contribute towards the current authority of thought. Although Alvesson and Sköldberg admitted that avoiding reproduction and reinforcement of dominant ideologies is difficult at best, this study will undertake to recognise the social and historical contexts and dominant ideologies that surrounded the construction of the empirical material. Some of these elements will be discussed throughout this chapter and will be highlighted in further chapters.

Part two of this study involves researching how the members of the culture (lecturers of under-graduate research methodology courses) understand their world. Alvesson and Sköldberg (2000) described this approach as follows:

> It remains closer to what can be represented empirically ('reality' as the members of the culture know it) in a reasonably simple way, and makes use of interpretations drawn from critical theory only when these appear most relevant and near at hand, that is to say without too much effort by the researcher to reduce the rift between the theoretical and empirical levels (p. 140).

This form of critical research has been chosen to avoid complex, time-consuming reflections on extensive theory and empirical data by making a selection of smaller manageable themes so that more time can be devoted to a critical in-depth study of these themes.

This part of the study is firmly placed within the broad qualitative genre. Critical theory and specifically critical hermeneutics inform this approach. Hoshmand (1999) linked qualitative research with hermeneutics by saying that "[h]ermeneutics is concerned with human ontology, and qualitative research is looked on by many as a means of improving on the quality of our ontological statements about human beings" (p. 21). Hermeneutics allows the researcher to address reflexivity in the way that qualitative research demands and moreover, both involve a part-whole interpretation and elucidation of the phenomenon. Hermeneutics also advances critical thought about the cultural practices in which we engage and from which we create meanings in our human existence. Researchers following a critical hermeneutical approach will thus analyse cultural beliefs in order to better understand and change our social world. Kincheloe and McLaren (2000) emphasised the centrality of interpretation to qualitative research that is informed by critical theory. The researcher does not make value-free statements, but interprets phenomena from the onset. Even "perception itself is an act of interpretation. Thus the quest for understanding is a fundamental feature of human existence, as encounter with the unfamiliar always demands the attempt to make meaning …" (Kincheloe & McLaren, 2000, p. 286). Researchers thus make meaning in terms of the unfamiliar and try to achieve a deeper understanding of the familiar within the boundaries of their world.

In the section that follows questions are raised and answered about the methods that can be used to collect data within critical social theory.

4.3 Does the method fit?

As the reader will see in the chapter that follows, philosophy of science is not included in many under-graduate research courses. This topic does, however, occur in most prescribed texts and entire chapters are devoted to it (e.g. see Babbie & Mouton, 2001; Dyer, 1995; Mertens, 1998). What some of the authors of these texts seem to suggest is that researchers should maintain the link between ontology, epistemology, methodology and method. At the one extreme of this viewpoint is the argument that only certain methods can be applied within a specific paradigmatic stance. An example of this was mentioned in a previous chapter that included a section on feminist viewpoints of research and the call of some of the researchers working in this paradigm to abandon all quantitative methods[2]. Thus, from this perspective, the assumptions framing the ontology and epistemology of some approaches preclude the use of certain ways of researching the social world. Laudan (1996) clearly agreed with this view when he stated that research traditions establish methodological rules and norms for the collection of data and for testing theories. The question that can consequently be asked is 'Does the method fit the paradigm?'. Von Glasersfeld (1984) linked the word 'fit' to Darwinian and neo-Darwinian theories of evolution and deconstructs 'fit' as follows: "one could consider certain things fitter than fit, and that among those there could even be a fittest" (p. 4). For epistemological reasons some research methods are elevated in status above others or singled out as the only method to employ.

[2] Although feminist research has aligned itself with qualitative methods, Eagle et al. (1999) pointed out that there is debate about the methodological direction for feminist research and that some feminist researchers are open to using quantitative methods.

An opposing argument put forward by authors such as Chamberlain (2000) and Seel (2000) is that the method that the researcher uses is determined in part by the question that the research is attempting to answer. Empirical knowledge should (although not necessarily always) be useful in practice. In Seel's (2000) and Tashakkori and Teddlie's (2003) opinion, methodological plurality is required for psychology to remain useful to practising psychologists as well as to society in general. Seel (2000) suggested that a scientific meta-discourse be established that will accept different methodological approaches to researching the social world. Seel (2000) referred to this idea as proto-psychology; it "has to deal with the assignment of different methodological approaches to special types of situations of social practice in a pluralistic society and thus demonstrate the usefulness of scientific psychological knowledge" (p. 1). In academic circles psychologists such as Watts (1992) argued that choosing a qualitative approach for psychological research should be for pragmatic and not ideological reasons. When teaching qualitative methods, Ashworth (1995) recommended beginning with the practical aspects of qualitative research and moving to philosophical aspects at a later stage. The term 'practical', however, does not only mean 'useful' or does not have to be connected to practice in general, but can refer to a particular purpose (Bohman, 1999). Qualitative and quantitative methods are seen as compatible in a paradigm some refer to as *pragmatism*. This approach thus seeks to enable researchers to use any methodology that they see fit to answer the research question or achieve a specific aim (sometimes referred to as *paradigm relativism* [Tashakkori & Teddlie, 1998]).

A critique of the second approach refers to the tension that remains between quantitative and qualitative research despite efforts to resolve it by suggesting approaches such as triangulation (Fiedeldey-Van Dijk, 1993) and mixed methodologies (Cresswell, 1995; Tashakkori & Teddlie, 1998). Moreover, the conviction that only methods espoused by a researcher's ideology should be used adds to this criticism. Critical social theory and post-modernism suggest, however, that these debates are futile and suspend them in favour of a pluralistic approach or no approach at all (as mentioned in chapter 2). Habermas (1971) maintained that all theories and methods have legitimacy, but at the same time he was conscious of the fact that integrating different procedures “are of central significance for the logic of the social sciences, which have only fully developed in the 20th century” (p. 185). The problem with using only one approach is that "[t]aken on their own, each such approach is an inadequate, one-sided explanation of those phenomena that it seeks to explain from a particular methodological perspective and set of theoretical assumptions" (Bohman, 1999, p. 59).

Furthermore, Fiedeldey (1995) argued that any epistemology that rejects a methodology (and by implication methods) from the start due to perceived epistemological differences places limitations on the researcher. Although some critical social theorists embrace specific, and at times divergent, methodologies, as was illustrated in chapter 3, the researcher did not want to place any limitations on herself by rejecting methodologies and methods not consistent with critical social theory. The second view, methodological plurality, is thus subscribed to as it allows the researcher to select the method that will provide useful information about the research question. This approach also enables the researcher to consider a wide range of possibilities, as it does not limit the type of questions that can be asked about a phenomenon. Chamberlain (2000) used a religious metaphor to critique methodolatory attitudes and would term the approach chosen by the researcher 'charismatic', in line with her position as "… [a user] of

an eclectic approach who claim that it is possible to draw on any methods or combination of methods unproblematically" (p. 288). He viewed researchers who use this approach as potentially 'troublesome', but has "some sympathy for their argument provided it goes beyond the methodological level". Chamberlain made suggestions for how methodology and methods can be put firmly in their place; the application for this study will be illustrated at the end of this section. Several methodological approaches developed in social science research will therefore be used in this study to form a combination of explanation and interpretation that does not create a 'grand theory' that tries to encompass all phenomena for social science. Although critical social theorists also recommend theoretical pluralism[3], the scientific meta-discourse - suggested by Seel (2000) - embraced in this study is critical social theory as it accepts the use of different methodological approaches to social research[4] and is adequate, in the researcher's opinion, to give theoretical substance to the findings.

But does this mean that 'anything goes' when doing social research? Feyerabend would certainly have supported this view, but his critique of methodology and encouragement of anarchy is strongly rejected by Laudan (1996) who stated that “when anything goes, everything is gone – including any grounds for picking out some theories as more acceptable than others” (p. 111). By rejecting objective ways of judging which methods are better than others, Feyerabend created a paradox for the development of new theories. In order to change or extend fledgling theories it is necessary to subject them to some method of empirical testing. If, however, social scientists suspend any criteria for judging which theories better adhere to empirical tests, it is difficult to change established science (Laudan, 1996).

To address this possible point of criticism, three 'paths of accountability' will be put forward by the researcher. The first is the audit trail, a detailed account of how and why the researcher chose and implemented certain methods. This in turn leads to the second path, scientific rigour. This does not refer, however, to the positivistic belief that accurate methods will lead to a description of reality. Scientific rigour in this sense holds that each of the methods chosen are employed in a consistent manner, meaning that they are true to the ontological claims in which they were developed. The merit of the first view, described in the opening paragraph, is that it demands consistency in the approach that is used. The ontology, epistemology, methodology and method should be congruent and form a logical whole; assumptions held by the paradigmatic stance should not be violated. This is often termed coherence of design (Durrheim, 1999). As Bohman (1999) put it "the relative rights and specific limitations of each theory and method are recognized by assigning them to their own particular (hence limited) empirical domain" (p. 59). Consistency is also maintained with critical theory as it "does not seek to eliminate any possibly fruitful line of empirical research on theoretical grounds" (Bohman, 1999, p. 59). This path can also be linked to Habermas's idea of the 'relative legitimacy' of all theories and methods. Each approach's relative right in social science research is assumed, but with that its weaknesses and limitations should also be criticised (Bohman, 1999). Critical self-reflection is the third path of accountability, and is something that should be included in the research process. During critical self-

[3] Laudan (1996) may have referred to this as *epistemic relativism* and defined it as follows: "that evidence radically underdetermines theory choice - to the extent that virtually any theory can be rationally retained in the face of any conceivable evidence" (p. 5).

reflection the researcher tries to counteract "the natural tendency to interpret existing social reality from a taken-for-granted cultural stance" (Alvesson & Sköldberg, 2000, p. 144) by reflecting on and questioning social conditions and dominant thought patterns. Thomas (1993) added that the reflection should also involve examining the researcher's effect on the data. The role of critical self-reflection and praxis for this study has been discussed at length in chapter 3.

As mentioned earlier in this section, Chamberlain (2000) outlined a way to avoid a possible methodolatory stance in the research process based on four questions suggested by Crotty (1998):

- What methods do we propose to use?
- What methodology governs our choice and use of methods?
- What theoretical perspective lies behind the methodology in question?
- What epistemology informs this theoretical perspective?

Chamberlain added, however, that the order of these questions should be reversed so as not to constrain the levels below each one. The researcher's epistemology should therefore serve as the base for the theoretical perspective, methodology and methods that are chosen. The approach followed by the researcher is illustrated in figure 8. One level is added to Crotty's (1998) questions: 'What ontology informs the epistemology?' As discussed in chapter 3, the ontological claims of this study are critical realist following Bhaskar's (1998b) concept of transcendental realism. This construct suggests that an external, autonomous world exists that functions independently of the knowledge that science has accumulated over time of the laws that cause events in nature. The researcher would thus concentrate on uncovering these pre-existing structures that are social arrangements in this case. People also represent the social world in certain ways, suggesting a second component that the researcher needs to examine. The diagram thus divides into two components: external reality and the representations that are made around this. To apply it to this study, the concepts of the objective, subjective and normative-evaluative realms, defined from a critical theory viewpoint, mediate the understanding of ontology. The objective realm is equated with the content of research methodology courses while the subjective and normative-evaluative realms are concerned with the representations that academics make around the content. Although it can be argued that the curricula examined in this study are based in human action, the researcher positions them as the world of events or facts that Habermas refers to (see chapter 3). On an epistemological level, the two different components need two different ways of knowing as they answer two different questions. Although Alvesson and Sköldberg (2000) firmly located critical theory within the interpretive paradigm - "[c]ritical theory … works interpretively … its advocates are interested in the level of meaning and believe that social science is about providing various phenomena with content and meaning" (p. 136) - it is necessary to first describe the objective realm that is being referred to by the academics that were interviewed. As argued above, critical theory allows the methodological pluralism that is needed to investigate the two components described and is evident in the use of methods that produce findings for the empirical-analytic and historical hermeneutic cognitive interests described by Habermas (1971) (see chapter 3). Concepts in critical theory will be used to place these findings in a

[4] Laudan (1996) may have referred to this as *metamethodological relativism* and defined it as follows: "that the standards for theory evaluation are mere conventions, reflecting no facts of the matter" (p. 5).

theoretical framework. Figure 8 contains a visual summary of the ontological, epistemological, theoretical and methodological levels of this study.

Level in the research process

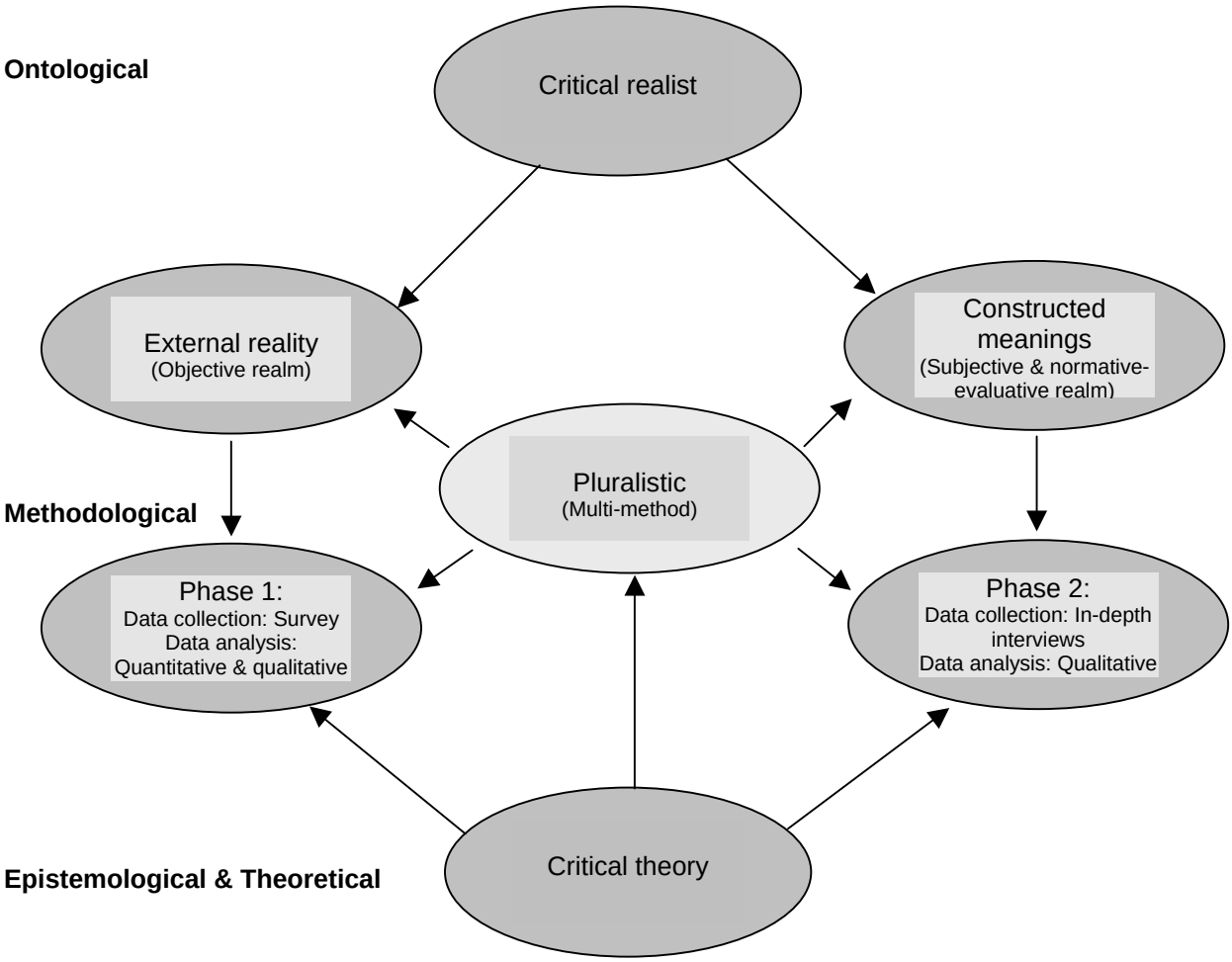


Figure 8 Levels of the research process

As the reader can thus see, a quantitative method was used for generating the data in phase 1 and a qualitative method for phase 2. Both quantitative and qualitative methods were used for analysing the data. Chamberlain (2000) lamented the use of qualitative methods for only adding 'depth' and 'context' to quantitative results as the mainstream findings. In agreement with this author this study does not use qualitative methods to merely augment the findings in part one. A so-called mixed methodology - a paradigm that contains elements of both the quantitative and qualitative approaches (Tashakkori & Teddlie, 1998) - is also not advocated as a researcher may also fall into the quantitative-as-mainstream and qualitative-as-supplementary trap described here (also called dominant-less dominant mixed method designs by Tashakkori & Teddlie, 1998). Rather, qualitative research from a critical social theory framework will be used in this case to answer a different research question in part two: *how* and *why* does the under-graduate research methodology curriculum contain certain topics? Tashakkori and Teddlie (1998) may want to refer to this as a *sequential mixed method design* and Cresswell (1995) to a *two-phase design*, but in the researcher's opinion a case can be made that the two parts are answering different questions. Tashakorri and Teddlie's (2003) most current definition of this design as *multi-method* is accepted: "… the research questions are answered by utilizing two data collection procedures

… or two research methods, both from earlier qualitative or quantitative traditions" (p. 62). Part one of this chapter that answers the first question - *what* topics are presented in under-graduate research methodology courses? - follows.

4.4 Part one: Examining the content of under-graduate research methodology curricula

The aim of this section of the chapter is to describe the process of eliciting a description of the content that is included in research methodology courses at universities in South Africa. Due to the exploratory nature of this study, some initial questions were needed that were broad enough to provide the researcher with the flexibility to explore a phenomenon in detail, but that could also narrow down and focus the scope of the study. The questions posed are the following:

- What texts are prescribed by lecturers of under-graduate research methodology courses at South African universities?
- What is the most important content contained in these texts?
- From the contents in the texts, what aspects are taught in research methodology courses?
- What names are given to under-graduate courses that teach research methodology?
- What are the most prominent aspects that are taught in research methodology courses?
- What are the least prominent aspects that are taught in research methodology courses?
- What skills are taught to under-graduate students in research methodology courses?

The justification for exploring the content of under-graduate courses in research methodology can be framed on different levels. On the first level, familiarity with the content provides one with an overview of what is presented in research methodology courses. On the next level, some ordering of the data can, for example, provide insight into what teachers of research methodology deem more (and less) important in providing students with research skills. On an even higher level, comments can be made about the ontological and epistemological implications of the content of the courses.

The way in which information was gathered is explained in the section entitled 'research design'. The following are described: the sampling method, the collection of the data and the analysis of the data.

4.4.1 Description of the sampling method

Part one combines both exploratory and descriptive research as described by Neuman (2000). It is exploratory in that the content of research methodology courses in South Africa is not a topic that has been explored thoroughly as evidenced in recent literature. Also, data that is gathered in the first part will yield information for the researcher to be able to continue to the next phase of data gathering, namely the beliefs held by the people who construct and/or teach research courses. Systematic random sampling was not implemented in this exploratory phase, as the aim was to become familiar with the topic being

studied and not to test hypotheses or make generalisations from a representative sample to its population. As succinctly stated by Pidgeon (1996, p. 89), "[t]he aim, especially with early data collection, is to generate a 'rich' set of materials. Later on … these decisions tend to become more focused". As many social science departments as possible were thus included in this phase of the research. Later sampling takes place in the form of choosing universities to include in a case study approach (see section 4.5.3). Part one also adheres to the definition of descriptive research, as the aim is to provide a detailed and broad overview of the content of under-graduate research methodology courses.

4.4.2 Method of data collection and generation

Information about the content of under-graduate research methodology courses was collected in four phases. The first phase was started in 1999 and the last phase completed in 2001. Where necessary, information was updated so that the database remained relevant throughout the study. (This process was reliant on the availability of information from lecturers and the National Research Foundation's (NRF) website which hosts the Nexus database[5].) Each phase and its outcome are described below.

It is necessary to describe the process that was followed in the data collection and analysis to not only fulfil the requirements for this thesis, but also since good (qualitative) research practice calls for the provision of an audit trail that offers the reader insight into how the research was conducted. This trail involves the researcher giving a detailed description of the research process so that

> … the reader should be in a position to replicate the research method, and should have a sense of the interpretive lenses that have been applied to the analysis of the field. We should let the reader into our confidence and not report only the final resolution, but also the route we followed on the way there (Kelly, 1999b, p. 427).

Although audit trails differ in detail and complexity (Kelly, 1999b), the trail laid out in this study is fairly comprehensive. This is to avoid any confusion that may arise from using a multi-method design.

4.4.2.1 Phase one

The first phase entailed contacting academic departments in the faculties of social sciences and/or humanities via telephone, fax or e-mail; the most successful response rate being telephonic contact. Lecturers of under-graduate research methodology courses (i.e. from the first to the third year of study, or fourth year in courses such as social work where this is still regarded as under-graduate) were requested to make information available about the prescribed texts for their courses. They were also asked whether any major changes to texts would be made in the forthcoming year. This provided an idea of whether the lecturer should be contacted again to update the texts being used. The Nexus database of research methodology courses also contains a field for prescribed texts that were added to the list if they were not

[5] The Nexus database can be found at http://www.nrf.ac.za/nexus and is described on the website as consisting of "a set of databases mainly related to the humanities and social sciences through which it provides information on current and completed research projects, research organisations, professional associations, biographical information on researchers, periodical submission

already on it. The outcome of phase one is a list of 110 texts that are used by teachers of under-graduate research methodology courses at the universities included in the study; the list is presented in Appendix A.

This list is by no means exhaustive of all the texts used in the courses. Although supplementary material such as research articles and course notes were also noted, they have not been included in part one of the data collection as it is a difficult and long process to obtain these materials from individual lecturers. The researcher punctuated - at this stage of the data collection process – textbooks as the material used to teach under-graduate students.

4.4.2.2 Phase two

Phase two consisted of systematically obtaining the prescribed texts either from the library at the University of Pretoria or through interlibrary loans. Not all the texts were available in the University of Pretoria's library, which made the use of interlibrary loans necessary. To minimise the costs related to obtaining all the texts it was decided that once a point of saturation in topics that were included in the books (see Phase three) was obtained, the remaining books would not be included in the data gathering. The principle of saturation or exhaustion is described by Kelly (1999b) and is also referred to as redundancy by Lincoln and Guba (1985). Redundancy can be used as a criterion for sampling in qualitative research where data collection is abandoned when no new information is received from additional sources. Although Kelly (1999b) explains the terms saturation and exhaustion in connection with interpretive accounts, one of his descriptions of 'exhaustion' is "when what is left undone is 'let go of' " (p. 422). This happens when the material that has already been collected fulfils the account you are making of an event. In this case, the topics generated from the prescribed texts were examined when a list of contents was received, and at the point where no new topics were produced the gathering of texts was abandoned. The researcher thus made the assumption that the topics already generated were maximally representative of topics in subsequent lists of content. Saturation was reached when 92/110 (84% of the total number of books) were obtained. If one reflects on 84% as a rate of representivity that the sample (list of contents actually gathered) reflects of the population (all prescribed texts in research methodology courses in South Africa), then this figure could probably be interpreted as adequate.

Once the books were in hand, a copy of the list of contents of each prescribed book was made. The outcome of this phase is the content included in texts published nationally as well as internationally that are prescribed to under-graduate students in research methodology courses in South Africa. This formed a data set that the researcher could explore for the next phase of the data collection and generation process.

requirements as well as on forthcoming conferences". In addition, there is a database on research methodology courses in South Africa that can be accessed via the above-mentioned address.

4.4.2.3 Phase three

The outcome of phase two was then used to compile a list of topics from the textbooks. The topics were generated by reading through the list of contents from the first book received and deciding on the main points about research methodology that the text was trying to put across. The first book was used as a basis, and additional topics were added to this initial list until a point of saturation (as discussed in phase 2) was reached. Secondary topics (to a maximum of a third level of sub-topics) were added as a subset where necessary. The reader will notice that the topics do not reflect the smallest details in some texts, the reason for this being that the NRF's Nexus database used for the generation of the dataset in phase four does not provide more detail than broad steps in the research process and research skills that students learn. Compiling a detailed list beyond that of the NRF's database would therefore have been a waste of time as no data would be captured for the topics not listed by the departments or faculties for phase four. There are instances, however, where texts have main or secondary topics that are not addressed according to the Nexus database. This may be due to the lack of detail provided by the Nexus database or information being included in texts that are superfluous to the current perceived needs of under-graduate research methodology courses.

The outcome of phase three is a list of topics in textbooks prescribed in under-graduate research methodology courses. The NRF's database yielded some topics apparently not listed in the contents of any prescribed texts or which may be covered in a small section of the book only, and not deemed necessary to include in the list of main or sub-topics. These additional topics were mostly generated from the section of the database named 'skills covered' in the course. Where the skills covered overlapped with the topics they were incorporated into the existing topic as it is assumed that in order to practice a particular skill, the students would first have to familiarise themselves with the theory underlying the skill. From the finding that not all skills-training can be found as main or sub-themes in research methodology texts, one may deduce that although these under-graduate texts cover most of the topics that are deemed important in academic circles, there may be a deficiency in certain areas, especially concerning skills training. Where the topics listed by lecturers were not found in the content lists of the texts, the researcher examined some of the texts more closely to determine whether the topic was perhaps included in the text but not listed as a main or sub-heading. Most of the remaining topics were identified in this way. The entire list of topics is provided in the chapter that follows, integrated with the data from phase 4.

Another deduction that can be made from the information collected in phase 3 is that each lecturer within a department has a unique construction of what research methodology entails and what should be taught at an under-graduate level. This view depends on what the lecturer's perceptions of what the course needs to achieve and the market it is aimed at. Additional evidence for this statement is provided by the names given to research courses on the Nexus database, under the heading 'courses in research methodology'; names differed in almost every department offering a course in research methodology. Some of the courses have generic names while others are more specific about the market they are targeting. Below are some examples:

- Quantitative research methods
- Methodology of social science
- Introduction to social work practice
- Psychological research
- Social research
- Education research methodology
- Research methodology
- Applied logic
- Nursing administration
- Environmental and geographical science
- Qualitative research in education
- Quantitative economics
- Philosophy of science
- Communication research
- Cartography and remote sensing.

4.4.2.4 Phase four

The outcome of phase three presents an overview of the topics covered by prescribed texts for research methodology courses. It is necessary, however, to establish which of these topics are actually included in the courses. Extensive use was made of the NRF's Nexus database for this purpose as it is a centralised place that maintains records of research methodology courses. It is also relatively inexpensive to access compared to re-contacting lecturers by telephone. The Nexus database is extended or updated regularly by a request from the NRF for lecturers to submit, on a paper questionnaire or electronically, the latest information about their courses.

The information on the content of each course was obtained by accessing relevant departments or faculties of each university available on the NRF's website. Eighty-two courses were included in the database. The departments or faculties were then listed in columns in an Excel spreadsheet with the topics listed in the rows. This manner of data management complies with the suggestion made by Huberman and Miles (1994) that a systematic and coherent process must take place for data collection, storage and retrieval. This ensures that (a) the data is of a high quality and is accessible, (b) a record is kept of the analyses as they are carried out, and (c) the data and subsequent analyses can be retained after completion of the study. A frequency of one (1) was placed in each cell if the department or faculty reported covering the topic in their first, second, third or fourth year course. If the department concerned presented the same topic to another year group this was indicated by a frequency of two (2), while for three year groups a frequency of three was entered (3) up to a maximum of four entries. The topics with a high number of entries are thus either presented by many of the departments or are presented to more than one year group within a department, or both; no differentiation between these events is made.

A summary of the skills that students acquire in research methodology courses was made from the Nexus database in the same way that the information about content of courses was processed as

discussed above. The names given to the skills acquired by students were taken directly from the Nexus database. If a particular name needed clarification the researcher attempted to do this; the list should be read as a reflection of the punctuation of teachers of research methodology about what a skill entails. Schurink (in Poggenpoel, 1998) refers to these punctuations as first-order concepts that focus on the emic approach to constructing a typology or "conceptual framework which classifies phenomena in terms of the elements they have in common" (Poggenpoel, 1998, p. 338). In other words, the meaning that teachers of research methodology have given to the concept 'skill' is reflected on a first level in the data collection.

The researcher then read through both the tables of the content of the courses and skills listed and organised them in a certain way by merging or not merging specific skills. Strauss and Corbin (1990) define this process of categorising as "grouping concepts that seem to pertain to the same phenomena" (p. 65). The way in which the skills were or were not merged into one category reflects the punctuation of this researcher about how research skills are or are not related. There are many possible ways of dividing and placing topics together. Where necessary, research methodology texts were consulted in some cases for clarification on the classification of a particular topic. An example of this is 'unobtrusive observation'. Neuman (2000) places this topic in a chapter on 'nonreactive research and secondary analysis' and so in generating the data for this study I placed unobtrusive observation together with secondary analysis. This typology reflects the conceptual framework of the researcher about skills as well as relevant literature and is referred to as an etic approach that contains second-order concepts (Schurink in Poggenpoel, 1998). These concepts are presented as categories in which the skills might belong and a frequency count is given for each category.

The reader should note that the categories are not mutually exclusive, in other words, the individual topics do not fit into only one category (Neuman, 2000). For example, in table 7 (in chapter 5) the skills listed under the category of data collection could be placed in other categories if it was known what specific method of data collection is being referred to. The fact that specific reference was not made for all cases hampered the researcher's task in categorising these topics.

4.4.3 Data analysis

As discussed earlier in the chapter, the data for this study was collected using a multi-method design. This implies that the way in which the data were analysed also followed different approaches. Although methodological triangulation may strengthen a research design (Patton, 2002), one of the drawbacks of using more than one method is that the reader might be presented with an unfamiliar approach, which may lead to confusion. Therefore an attempt has been made here to outline each process of the data analysis as clearly as possible and also to refer the reader to the theoretical basis for this design. Besides using descriptive statistics in the form of frequencies, which falls in the domain of quantitative research, qualitative approaches credited to Huberman and Miles (1994) and Strauss and Corbin (1994) are described below and applied to this particular study. The data analysis is contained in three levels that are explicated in the sections that follow.

4.4.3.1 Level 1

In keeping with the qualitative tradition of analysing data as it is collected (Huberman & Miles, 1994; Neuman, 2000), the contents of research methodology texts and the skills taught in research methodology courses were consistently scrutinised as the information was collected and merged as described above. The interactive model as suggested by Huberman and Miles (1994) was used to analyse the data and these authors define this step in the research process as containing three linked sub-processes: data reduction, data display, and the drawing of and verifying conclusions[6]. The first sub-process reflects a first level of data analysis and is discussed in this section. The next sub-process, data display is used for the second level of analysis. The conclusions that can be drawn and verified from the previous steps named above are discussed in the chapter that follows. This model is presented in figure 9 and its application for this study is discussed in more detail in the sections that follow.

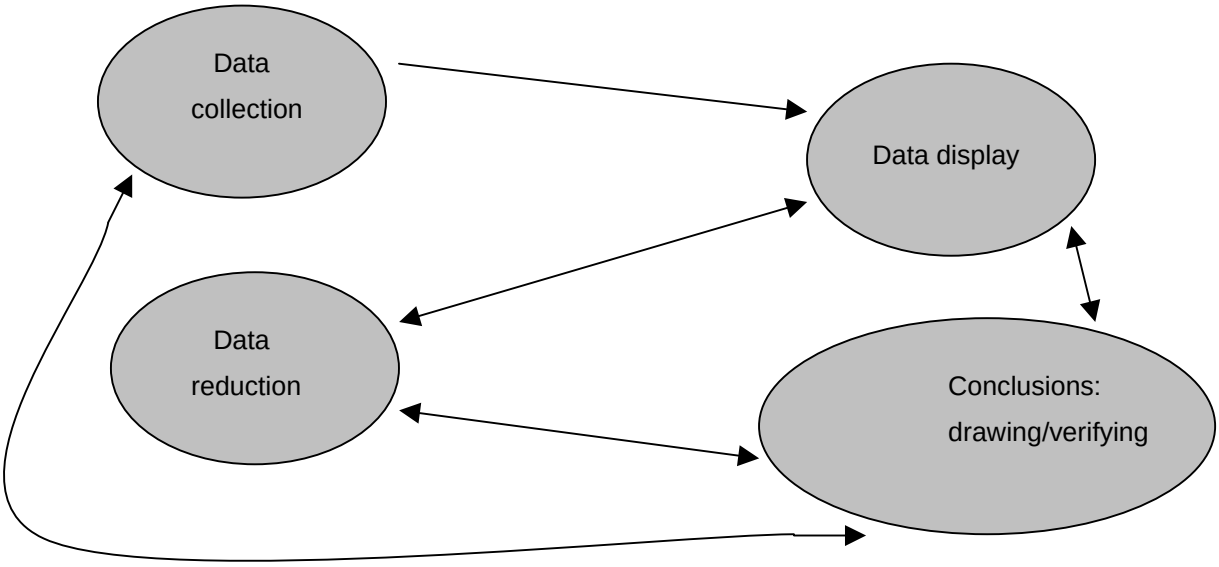


Figure 9 Components of data analysis: interactive model (Huberman & Miles, 1994)

- *Data collection*

Huberman and Miles (1994) include data collection in the interactive model, perhaps because of its integral relationship with the three sub-processes of data analysis. This relationship can be termed an interrelationship, which is illustrated by the bi-directional arrows in the model. Arrows flow in both directions to show that each sub-process is linked to the other sub-processes. Change in one thus means change in the others (see the discussion in chapter 2 about the recursive link between steps in the research process). The collection and generation of the data has been described in section 4.4.2.

[6] Huberman and Miles admit to being 'transcendental realists'. They believe that social phenomena have an existence not only in the mind, but also in the objective world. They thus maintain "that there are some lawful, reasonably stable relationships to be found among them" (Huberman & Miles, 1994, p. 429). These laws exist from the constancy that links phenomena and this is what we derive our individual and social life constructs from. They acknowledge both the historical and social nature of knowledge on the one hand and the meaning that is at the centre of phenomenological experience. They aim to 'transcend' these processes by providing plausible explanations that are causal in nature, but also provide evidence to show that a certain entity or event is part of the explanation. Huberman and Miles suggested that a careful descriptive account should be made of each event. This approach encourages more descriptive and inductive methods of research.

The next step in the process is the reduction of the data. This step enables the researcher to display the data and draw relevant conclusions.

- *Data reduction*

Data reduction, according to Huberman and Miles (1994), is when the researcher takes the potential universe of data and reduces it in a specific way. The way in which the data is reduced is dependent on the researcher's conceptual framework, the questions asked by the researcher, the cases that are explored and the instruments used for exploration. Once the particular data is available further data selection and condensation of the data can be made. As described in the section on data generation and collection, the data was summarised and clustered as it became available.

4.4.3.2 Level 2

The next step in the analysis of the data is to enable the researcher to make conclusions about the results on a higher level. Previous sections described how the data were merged into categories. In this section the categories are displayed and discussed; this is the next step in Miles and Huberman's (1994) process of data analysis.

- *Data display*

This is the second part of analysis and complements the data collection and reduction already completed. A data display should be an organised, compressed collection of information that allows the researcher to draw conclusions or take action (Huberman & Miles, 1994). Once the data that was collected in this research was reduced into manageable units, the conditional matrix conceived by Strauss and Corbin (1990; see also Corbin & Strauss, 1988) was used to display the data. Strauss and Corbin's (1998) work is located in the grounded theory approach that can be described as follows:

> A researcher does not begin a project with a preconceived theory in mind … Rather the researcher begins with an area of study and allows the theory to emerge from the data (p. 12).

Although the theoretical stance of this study does not align itself with this definition, that is, a grounded theory approach was not used, the visual display of the data aids the researcher to conceptualise the order of the different topics pertaining to under-graduate research methodology courses.

The matrix can be described

> as a set of circles, one inside the other, each [level] corresponding to different aspects of the world … In the outer rings stand those conditional features *most distant* to action/interaction; while the inner rings pertain to those conditional features bearing *most closely* upon an action/interaction sequence (Strauss & Corbin, 1990, p. 161).

Strauss and Corbin represent the matrix as moving from micro to macro conditions. This is important to the analysis. The way in which this matrix has been adopted to display the data in this study is by placing 'content of courses' in an inner circle and placing the category that received the highest frequency in the next circle (the conditional feature bearing most closely to content of research methodology courses). This process is repeated until the outer circle contains the category that received the least frequency (the conditional feature most distant to the content of research methodology courses).

4.4.3.3 Level 3

Level three of the data analysis in this study contains Huberman and Miles' (1994) final sub-process in data analysis, namely conclusions: drawing/verifying. On this level the findings from the previous levels are examined and discussed in an abstract theoretical framework. This means that a meta-level description is provided, in other words, it moves beyond the actual data to a general theoretical account of what is taking place in research methodology courses. This discussion is presented in chapter 6.

Part one contained a description of the research design that was implemented to gain information about the content of under-graduate research courses presented at South African universities. Part two discusses the methodology used to examine the beliefs held by some of the academics that construct these courses.

4.5 Part two: Investigating how under-graduate research methodology curricula are constructed

Part one of this chapter discussed the methods that were used to collect information that would enable the researcher to describe the content of under-graduate research methodology curricula. A methodological justification was provided for the way in which data was collected and analysed in the different phases. The format of the findings from part one is numerical: a quantitative analysis was applied to qualitative data (in the form of written information) by attaching frequencies to the data and further reducing the categories by combining them. The triangulation of various sources, namely, personal (telephonic or e-mail) contact with lecturers, the NRF's Nexus database and prescribed texts, increased the accuracy of the description as it allowed for a cross-verification of information. Even though it was possible to check the information gathered from the lecturers with the Nexus database and place these findings in a body of literature, the data only gives one a general, summarised picture of what the curricula look like and many questions about that picture remain unanswered.

4.5.1 Answering the unanswered questions

As described in chapter one, this study began with a question about the teaching of research methodology and progressed to a curiosity about how the curriculum is structured even before it is taught. The curriculum does not originate from some external force and is not currently regulated by any outside body. The academic community that is involved in teaching research is directly responsible for

the content that is included in the curriculum. The rationale for engaging in part two of the study is based on the tentative statement that the curricula for research methodology courses - as probably is the case for most other courses - are informed by social, economic, cultural, historical, institutional and personal factors and choices that surround the particular discipline and its academic community at that time.

The aim of part two of the study is to discover what these factors and choices are and how they shape the content of the courses as described in part one. McCarthy's (1994) interpretation of critical social theory is relevant at this point:

> It [critical social theory] has insisted that the full significance of ideas can be grasped only by viewing them in the context of the social practices in which they figure, and that this typically requires using sociohistorical analysis to gain some distance from the insider's view of the participants (p. 246).

It may seem that the description of "gaining some distance from the insider's view of the participants" contradicts the aim of part two: understanding the lecturer's view of how he or she constructed the curriculum. According to McCarthy (1994), critical theory does not wish to "leave to the participants and their traditions the final say about the significance of the practices they engage in" (p. 245). On the contrary, there is a "need for an objectivating 'outsider's' perspective to get beyond shared, unproblematic meanings and their hermeneutic retrieval". It thus seems that critical theory is suggesting that someone, an objectivating outsider, should uncover the significance of the practices that people share and attach certain meanings to. McCarthy (1994) does not explain what he meant by an objectivating outsider, but clearly adheres to Foucault's way of creating distance from our practices by revealing "their 'lowly origins' in contingent historical circumstances, to dispel their appearance of self-evident givenness by treating them as the outcome of multiple relations of force" (p. 245). Instead of treating the curriculum of a course as a 'self-evident givenness', it is necessary to discover its origins in the multiple factors and choices mentioned earlier.

One method of achieving this distance is by revealing, from a critical perspective, the historical circumstances surrounding the origins of research methodology curricula in the social sciences as it is recorded in the literature. Literature about the insider's perspective is very limited, however, and thus one of the contributions that the results of this study could make is to expand this body of knowledge, especially in the South African context. Another method of gaining the participants' view would be to enquire about how they construct their curricula and try to find the significance in the language that they share and take for granted. As critical theory places less emphasis on primary empirical material it can be criticised for leaving researchers with a weak empirical base for working with complex phenomena (Alvesson & Sköldberg, 2000). The next section will explain the approach used to counteract this criticism.

4.5.2 The different arts to interviewing

Although lecturers were approached for information in part one, there was a standardised purpose to the conversation and this structured approach removed the researcher from involvement with possible informants and the subjective meanings they attach to the topic of the interview (Banister, Burman, Parker, Taylor & Tindall, 1994). In agreement with Polkinghorne (1983, p. 267), "the face-to-face encounter provides the richest data for the human science researcher seeking to understand human structures of experience", and interviews are seen as the most intuitive way of uncovering meanings in this context. Approaching the people involved in under-graduate research courses will provide a first-hand account of how they make sense of the curriculum and the factors that shape, maintain and transform it. Interviewing as a technique has evolved from ancient Egyptian population censuses to more recent times where it found its feet in two fields: clinical diagnosis and counselling with the aim of obtaining better quality responses, and psychological testing with the aim of measuring. Even though quantitative approaches and especially survey research have continued to dominate social science disciplines such as sociology, and even influence qualitative interviewing to the extent that it has incorporated quantifiable scientific rigour in some cases, interviews are still conducted in many forms today (Fontana & Frey, 2000).

The art of interviewing has been conceptualised in many different ways by various authors of academic literature on the subject. This research uses assumptions from both critical and post-modern approaches to interviewing. Before these approaches can be described, however, it is necessary to contrast some of the assumptions that are present in the traditional interview situation with post-positivist characterisations surrounding aspects such as the power relationship between the interviewer and respondent and the role played by the personal characteristics of the interviewer. From this discussion the motives for using aspects from both a critical and post-modern approach will become apparent.

4.5.2.1 The traditional perspective on interviewing as social research technique

The meaning of 'traditional' in this section is linked to the assumptions that are made in the interviewing situation about the role of the interviewer as the controlling mechanism in the interview. Most texts divide interviewing into several categories according to the extent of structure that they require from the interviewer on the one hand and the number of people being interviewed on the other. Fontana and Frey (2000), for example, referred to structured interviewing, group interviews and unstructured interviewing. Although the amount of structure and number of participants varies from type to type, their commonality lies in the role of the interviewer as the instrument through which the data is collected, analysed and reported.

As mentioned previously, qualitative interviewing has been tainted by the scientific rigour favoured in quantitative research with emphasis being placed on, for example, coding of data instead of data gathering techniques. In structured, traditional interviewing *a priori* categories are used to collect and code data and as such could be seen as lying closest to quantitative research. The way in which 'ideal' researchers will present themselves in this role is as "cool, distant, and rational" (Fontana & Frey, 2000,

p. 655). The researcher is a detached observer, neutral and impersonal who notes people's responses without emotion or interjection.

Within this conventional perspective the interviewer is in control of the format of the interview and asks purposeful questions. The researcher is the expert by virtue of knowing which questions to ask. The hierarchical relationship between researcher and researched places the respondent in a subordinate position which implies that the interviewer holds power over the respondent. This view also assumes that different interviewees will understand a question in the same manner and by the same token will not be influenced by the context in which the interview is conducted (Foddy, 1993; Scheurich, 1997). In Fontana and Frey's (2000) opinion, the personal characteristics of interviewers have little impact on responses because of the rigidity of the style of the structured interview despite the fact that some researchers have argued, as long as two decades ago, that different interviewers deliver different results (Warren, 1988; Wax, 1979; Zinn, 1979). Although more will be said about this later, Banister et al. (1994, p. 50) contend that "assumptions structure all research, and the least we can do is to recognize this and theorize the impact of these assumptions".

In contrast to the lack of involvement on a personal level between interviewer and interviewee in a structured interview, unstructured interviewing aims to understand people's behaviour and thus the interviewer attempts to establish personal relationships with the respondents without the preconceptions of pre-established categories. Gaining the trust of the respondents and establishing rapport usually forges these relationships (Berg, 1995; Fontana & Frey, 2000). Both the feminist and interpretive paradigms have embraced these assumptions regarding the role of the interviewer in their methodologies and a brief overview will consequently be given of each perspective. They have been chosen particularly as they have been criticised by Scheurich (1997) as holding on to modernist assumptions although they purport to have moved beyond this, and will be contrasted in section 4.5.2.4 with the post-modernist approach he suggests.

4.5.2.2 A feminist perspective on interviewing

Although this may be a debatable claim, Burman (1996) asserted that feminists have probably made the greatest contribution to the methodological sphere of psychology by firstly critiquing positivist approaches, and secondly by addressing the power relations in qualitative research (see also Kennedy-Bergen, 1993). Feminist literature argues that although sexuality is at the foundation of and essential to the social sciences as it is one of the ways in which we filter knowledge, it is often ignored in the interview situation (Fontana & Frey, 2000). Male interviewers frequently treat female respondents in a condescending manner and further, ways in which gender plays itself out within the interview situation are not acknowledged and addressed. For example, when more structure is added to the interview by the interviewer the danger exists that masculine meanings are imposed on female participants by focusing the interview only on what is relevant to the study and ignoring any personal opinions and emotions that the respondent may have. Feminist researchers have criticised this position of the conventional interviewer and linked it to a paradigmatic assumption that value-free data can be collected from people. They propose instead that the traditional hierarchical relationship between interviewer and

respondent be minimised although "they often treat power not as something that can be removed from research, but rather as an ever-present dynamic that needs to be acknowledged as structuring the interaction in diverse ways" (Banister et al., 1994, p. 53).

Feminist researchers attempt to redress this dynamic by, for example, explaining the goals of the research to the researched, ensuring willing and voluntary participation in the research, collaborating with women's organisations, using the terms 'informants' or 'participants' instead of research 'subjects' (Eagle et al., 1999) and describing the context the researchers themselves belong to and bring to the research (Scheurich, 1997). Eagle et al. (1999), however, warned that the intimate relationship that a feminist researcher develops with the participant may give rise to an ethical dilemma. Also, Taylor (1996) discusses her experience as a female researcher being exposed to sexual harassment in the interviewing field and postulates that male interviewees use this mechanism to resist the traditional researcher/researched power dynamic in the interview situation by re-asserting themselves as the dominant party in the process.

4.5.2.3 An interpretive perspective on interviewing

Interpretive research methods challenge positivist notions of using only numbers and measurement to describe social phenomena, thereby accepting qualitative approaches as more suitable for this purpose. As the interpretive researcher aims to understand how people experience their life-world and the meanings that they give to these experiences, interviews can be seen as integral to this understanding (Foddy, 1993; Silverman, 1993). An important concept in interpretive interviewing is that of *verstehen* or empathetic understanding where the personal and social contexts that interviewees act in are central to the analysis of what they say to the researcher. Interpretive research can be criticised for its relativism, that is, stating that experience can only be understood by a specific person at a specific time within the context in which the experience has taken place.

Nonetheless, what is important to the interpretive interviewer is that the answering of the research question allows the phenomenon to remain in its context, that is, in its natural setting where it usually occurs. The researcher then approaches this setting with care, being open and empathetic to the research participants. The relationship between the interviewer and interviewee is based on trust. The interviewer works to establish this understanding by making the interviewee feel comfortable, asking general questions in the beginning of the interview and later progressing to more complex or sensitive issues. A good interview explores and describes the interviewee's experience by asking the right questions and providing the right atmosphere for the interviewee to answer these questions without feeling threatened (Terre Blanche & Kelly, 1999).

4.5.2.4 A post-modern approach to interviewing

Some views of research attempt to do more than just acknowledge the power relationships that exist between males and females in the interview situation. Although feminist researchers emphasise the gendered aspect of research, there are many other factors that can also be recognised and addressed

such as age, race, class and so on (Banister et al., 1994). A post-modernist approach also argues that many of the assumptions made in the traditional notion of research in general, and interviewing in particular, should be problematised, challenged and changed. Fontana and Frey (2000) mentioned three aspects of interviewing that have received attention from post-modernist researchers: the voices of the respondents, the interviewer-respondent relationship and the effect of the researcher's personal characteristics such as gender, race, age and social status. All of these aspects will be briefly referred to in this section with particular attention being paid to the notion of power in the researcher-researched relationship.

As discussed in section 4.5.2.1 the traditional approach assumes that the context in which the interview takes place does not have much influence on the data that is gathered. Scheurich (1997) criticised this notion by saying that "[w]hat a question or answer means to the researcher can easily mean something different to the interviewee. What a question or answer means to the researcher may change over time or situations" (p. 62). Thus it is not only the personal characteristics of the interviewer and interviewee that are in interaction, but also what meaning each of them ascribes to the moments that the interview takes place in (meaning changes across people, time and situations). Franklin (1997) refers to this as 'polyvocality' or the recognition that there are multiple voices within our research participants and within ourselves as researchers that may compete and contradict one another. The implication of this is that the researcher should enable all parties to give expression to these multiple voices to allow for the different identities to unfold (Gergen & Gergen, 2000). This could translate into the idea that the researcher has all the power in the interview situation and can choose to give power to the interviewee. This empowerment of the interviewee by the interviewer supposes that the respondent will have more control over how meaning is constructed in the interview. This is in sharp contrast to the positivist notion that people are rational, coherent beings with a single integrated self, existing in a determinate and stable reality 'out there' and by implication that the researcher is able to formulate questions that will accurately determine, control and represent this reality (Foddy, 1993).

The post-modernist perspective on power relations between researcher and researched is clearly different to the view of the structure of relationships in the positivist paradigm. Scheurich (1997), however, questioned the concept of asymmetry of power or totalisation of inequity as he termed it in the researcher-researcher relationship. A further implication of saying that *each of them ascribes meaning to the moments that the interview takes place in* is that "interviewees are not passive subjects; they are active participants in the interaction" (Scheurich, 1997, p. 71). Therefore they may resist the power asymmetries in the interview situation as power is not something that a person possesses or something that can be determined and measured, but it is mediated and manifests itself in relationships where it is enacted and expressed in specific ways (Alvesson & Sköldberg, 2000). Interviewees could resist researchers' attempts to dominate the interview with their questions by not revealing all that they could, or by interjecting their own needs into the conversation and thereby controlling certain parts of the interview without the researcher's 'intervention'. Scheurich (1997) praised critical theorists for focusing on dominance and resistance and applying it in interviewing as a method, but also criticised it for creating another dominant binary. Although he noted that it is important to acknowledge the active role that participants play in research, it is necessary to look beyond how the researcher dominates the interview

and how the interviewee resists the dominance. Scheurich (1997) called this space 'chaos' and defined it as "everything that escapes or exceeds this binary … and an openness or freedom for the interviewer and interviewee" (p. 72).

The idea that the interviewee can deceive the researcher or hold back certain experiences is not new. Dilthey (in Habermas, 1971) stated that "… in more than a few cases we must take into account in addition the existence of an intention to delude us. Facial expressions, gestures, and words contradict what is within" (p. 174). Polkinghorne (1983) suggested that interviewees can offer socially desirable responses and that interviewer objectivity can lead to information constructed by researchers based on their expectations or positioning in the interview. The relationship between the interviewer and interviewee therefore becomes paramount in the revelation of experiences and the meanings that they hold for interviewees. The idea, however, that researchers are able to remedy resistance on the part of the interviewee solely by attempting to establish rapport is questionable.

A change in language used by researchers is a further difference between approaches such as positivism on the one hand and feminism on the other. Banister et al. (1994) cited, for example, the use of the terms 'interviewees', 'participants', 'informants' or 'co-researchers' instead of 'subjects' of research. This change in language, however, may not be enough to guarantee that researchers follow a participatory and consultative process. Consequently, researchers should remain committed to examining their attempts to control the research for the achievement of the research goals. The word 'respondent' could also be viewed as problematic as it is defined as "… a person who answers a request for information" (Cambridge International Dictionary of English, 1995), conjuring up the image of the interview as a passive giving of information by a selected person in answer to the researcher's questions. Although the researcher prefers the words participants and interviewees, the word respondent may be used in this study for the sake of convenience.

4.5.2.5 Critical social theory and interviewing

Although it was stated in section 4.3 that critical theory falls within the realm of the interpretive epistemology, it is necessary to distinguish some of the assumptions that a critical researcher may use in the interview situation as opposed to the ideas of an interpretive approach. As stated earlier, critical theory is wary of the role of empirical material as it can cloud the researcher's interpretation of the conditions that lead to the way in which a certain phenomenon was constructed. The results of interviews, questionnaires and other systematic methods should be approached with caution as there are many subconscious processes and other factors (social conditions, ideologies and communicative patterns) that research participants are unaware of and cannot express (Alvesson & Sköldberg, 2000). Critical social theorists would thus criticise Patton's (1990) definition of the purpose of interviewing as being "to find out what is in and on someone else's mind … to access the perspective of the person being interviewed" (p. 278) (as if the necessary information is readily accessible and all the researcher needs to do it to ask the interviewee particular questions).

The aim of critical theory research is to go beyond the surface meanings that research participants communicate to the researcher. In order to do this the researcher must examine what the respondents mean, how they construct their world and give meaning to this world and their own experience in it, but (perhaps) more importantly, the wider social context of which they are a part. This context combines with subconscious processes to provide a way for the respondents to construct certain meanings. For example, Firestone (1990) points out that social research has often been used for purposes of social control. In this position the researcher co-operates with the ruling party to generate results that can be used to suppress and control the masses. There is tension and division in the society in which this occurs. Apartheid and post-Apartheid writers cite many examples where research findings from studies done during the Apartheid era were used to rationalise the separate development of blacks and whites in South Africa with black people receiving inferior treatment (see Anonymous, 1981; Webster, 1981). If researchers sub-consciously (or even overtly) agreed with the policies of the government at that time, they would have found the ideal social context in which to practise research. Furthermore, Firestone (1990) associated positivism with research as social control, and once again, literature commenting on Apartheid shows how positivist studies were used to this end (see for example Louw-Potgieter & Foster's [1991] discussion on the intellectual testing of black and white people in South Africa and how the results were used to prove white superiority). On the surface, researchers assumed a value-free position separate from the socio-historical context in which events were taking place, but through their research interests they were reproducing the socio-political ideologies of the time.

Within a critical theory position then, interviews can be conducted with people who can provide an understanding of the way they have constructed meanings. Researchers should, however, go beyond surface meanings to examine how interviewees' thoughts about a phenomenon are embedded in certain histories and traditions and cause domination and distortion in communication. This can only be accomplished by using 'depth hermeneutics' which constitutes a critique of ideology (Habermas, 1977). Whereas interpretive researchers aim to understand phenomena from within a context, critical researchers examine the context from the outside (Terre Blanche & Kelly, 1999). To apply this approach to this study: part two of the research will examine, via interviews as empirical data, not only how lecturers of under-graduate research methodology courses think about and create meaning within such courses, but also the contexts that keep these traditions in place. Hermeneutics will be used as a basis for this investigation, but will be married with a critical approach to achieve the critique of ideology.

4.5.3 Description of the sampling method

In this section the researcher acknowledges the importance of who is chosen to tell the many stories that will reflect the total complexity of the findings from phase one. This implies that the interviewees should be representative of the different types of courses that are prominent in phase one. As Scheurich (1997) noted, "whose definition of a story gets to be essentialized. Who is permitted to define what a story is or what story-telling is?" (p. 68). As researchers, we should be aware "that the choice of whose story is essentialized has serious social consequences" (Scheurich, 1997, p. 69). The way in which the sample was selected for phase two is described here. More specific information about the universities and departments used in phase one is presented together with the results for this phase in chapter 5.

4.5.3.1 Categorising the courses

The data collected in phase one formed the basis of the selection of the sample for phase two. Before making the selection the data were further processed by using the topics and frequencies to draw up a profile for each department that was surveyed. This was accomplished by entering the data into Excel's radar graph function and getting a visual presentation of the particular course (see Appendix B for an example). Each course included in the study was scrutinised and categorised according to the content it presents (not to adhere to the positivistic notion of systematic method, but rather to ensure a pluralism of voices). The categories evolved as the researcher became familiar with the various course contents and was able to provide a definition for the category. Besides attempting to include different types of curricula, this *modus operandi* is also based on Habermas's (1979) idea of normal dialogues (established norms within a group that indicate acceptable ways of thinking, speaking and behaving). The researcher is thus assuming that there will be specific types of curricula that reflect particular customs within the social sciences. (Some of these customs might, however, be abnormal, i.e. they are not consistent with cultural norms and will probably be in the minority.) The researcher thus judges how much overlap between courses is necessary before placing them in a specific category and decides how much difference between courses is enough difference to justify placing them in separate categories. The categories are, however, not mutually exclusive, but the focus of the course was ascertained and used as the main criteria for distinguishing between categories. Also, the broad patterns of similarity in the curricula of courses will be discussed in part one of the chapter that follows and thus the focus is not so much on the differences in patterns.

The researcher took Miles and Huberman's (1994) advice about analysing the data twice, leaving a time period in between each analysis. The principle of internal homogeneity and external heterogeneity (Patton, 2002) was implemented where, once the categories were established, the researcher examined them for fitting meaningfully in the same category and for a clear difference between each category. Once the researcher was satisfied that the categories were internally homogenous and externally heterogeneous the classification was completed.

Four categories were evident from examining the profiles and are described as follows:

- Category 1: Sparse courses

The term 'sparse' is given to courses where the number of topics that are covered is small. Some of these courses only present issues on philosophy of science or background to research, for example. Four courses were place in this category.

- Category 2: Pluralistic or charismatic

Following from the discussion in section 4.3, these courses are named pluralistic as they convey many methods in social science research and its corollary that all methods have relative legitimacy.

Chamberlain (2000) may refer to these courses as charismatic as students will be able to draw on their knowledge of any method or combination thereof to answer the research question at hand. Courses in this category would, for example, include observation research as well as quantitative data analysis in the content. Sixty-one courses were placed in this category.

- Category 3: Qualitative-based

Only three courses were suitable for this category: they are based solely on or emphasise topics commonly associated with qualitative research.

- Category 4: Quantitative-based

Fourteen courses contain topics focused on quantitative methods or analysis of quantitative data.

A simple visual illustration of the percentage of the total number of courses (eighty-two) that each category holds is presented in figure 10:

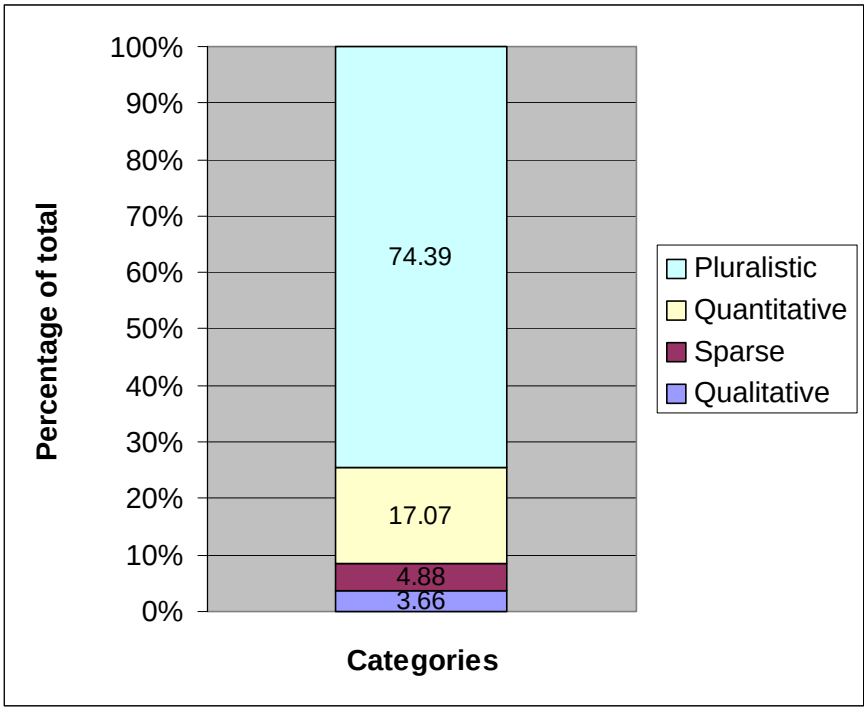


Figure 10 Percentage of the total number of courses held by each category

4.5.3.2 Selecting the courses

The next step involved selecting certain courses out of each of the categories so that the person responsible for constructing and/or lecturing the course could be contacted for an interview. Although Alvesson and Sköldberg (2000) pointed out that "[c]ritical theory has little time to spare for the bookkeeper mentality which is so typical of method-minded scholars, who like to see everything carefully pinpointed and logged" (p. 131), there is space for reflecting on why the current researcher categorised,

and chose, certain courses and not others. Alvesson and Sköldberg emphasised the importance of what is researched and what is not researched, but this can also be applied to who is researched and who is not researched (or interviewed). Consequently some reflections on the reasons for choice of a certain course will be presented: type of institution, geographical location, discipline and accessibility of selected participant in terms of their willingness to participate in the study.

Ponterotto and Grieger (1999) alluded to the effects of institution-specific training when they stated that "[o]ne's *research culture* (e.g., as existing in one's academic training environment) will shape one's worldview about the importance, process, and methods of research" (p. 51). Popkewitz's (1990) viewpoint supports the notion that modes of research investigation are not 'natural' or obvious, but based on what is available within an institutional context and conforms to the vested interests of society. Critical social theory seeks the conditions that mediated the social construction of these modes of research that are "responding to and a part of the relations and power arrangements in which science is practiced" (Popkewitz, 1990, p. 56). The application of these ideas to this study is included in making explicit the type of institution where a course is presented: in other words, representative of past distinctions based on the education policy of South Africa during Apartheid. This is because different universities received different resources for conducting research and thus structured their priorities in unique ways. The priority for funding research and training in research skills at historically disadvantaged universities (HDUs) was low as opposed to historically advantaged universities (HAUs)[7] (Bunting, 1994; Cooper & Subotzky, 2001; Seepe, 2000). According to Bozalek and Sunde (1993/4), in South Africa it is mostly white middle class men and women who have been given the opportunity to acquire research skills and knowledge and they thus also occupy the positions of power in research institutions. As the HDUs have been under-equipped and have lacked the necessary funding, the shift in recent years that has occurred in funding priorities may allow them to produce more (in numbers and perhaps quality) talented researchers. As Williams (2000) has suggested, this may influence the type of research being undertaken (and taught) at the different institutions:

> The academic social researcher, if she wants government funding, must harness their skills and imagination to ever improving economic and technical performance and the alleviation of social problems. She must demonstrate the pragmatic relevance of the researcher to external users in every application for funding (p. 161).

This state of affairs may be particularly relevant in South Africa where solutions to socio-economic problems need to be found while at the same time equipping previously disadvantaged researchers with the funding and skills necessary to do research. Mouton (2000) expressed his concern for the fact that the competition for scarce resources and increased funding for 'applied and strategic research' are discouraging factors for undertaking basic research. In his opinion higher education institutions remain an important place for conducting basic research.

[7] See also Ratele and Mokotedi (1997), for example, who expressed the difficulties experienced by the African learner as a result of the effects of apartheid education and the description by Eagle et al. (1999) of the exclusion of black people's views in social scientific research.

While the viewpoints expressed above may be one perception of transformation in social science research in South Africa, Seepe (2000) stated that initiatives to deliver black researchers by providing training in research methods have not been successful as "[t]he exclusion of blacks in research can be linked to issues of epistemology, and the political and cultural location in which the research process takes place" (p. 7). Seepe's argument is based on the epistemological viewpoint that research cannot be separated from the social and cultural context in which it takes place and he links past (and present) social research in South Africa to the ideology of apartheid. Seepe (2000) further stated that "[w]e err if we consider the research debate within the social sciences and humanities as simply an issue of skills, techniques and procedure" (p. 7) and encourages an 'Africanisation of higher education' which addresses

African issues. Although Seepe affirmed that scholarship based on European traditions is valid in its context, he alluded to the idea that training in research methodology should go beyond methods and procedures that can answer only certain questions and problems that are not always relevant to the majority in South African society. What this implies for the development of the discipline of research methodology and learning curricula in particular is a new way in which researchers and students need to think about doing research. Whether this transformation in higher education is taking place or not and why can be judged by the evidence provided later in this study.

Epistemological differences may also exist between social science faculties, and between and within departments. The departments in which the lecturers themselves trained may have shaped their paradigms. It is thus also important for this research to represent viewpoints that may differ radically from those of mainstream ones and not concentrate only on institutions that benefited in the past and departments that based their training mostly on traditional Western models. The two categories of universities, HBUs and HWUs (as indicated in part one), will be noted in the sampling procedure and the further distinction that is often made within HWUs, namely, between English-speaking and Afrikaans-speaking institutions, will also be considered. Furthermore, with the Extension of University Education Act of 1959, HBUs were divided along ethnic lines so that universities served certain groupings of black people, for example, the University of Zululand for Zulu speakers, the University of Durban-Westville for Indians and so forth (Balintulo, 1981). As this historical context is important to this study, it will be included in the analysis.

The geographical location of the institutions also played a role in the selection of the sample. Geographical location is defined as the nine provinces of South Africa. The researcher attempted to gain as much diversity as possible in terms of which province the university is located in. This is based on two reasons. Firstly, South Africa is a large country by European standards and many diverse perspectives are represented within its borders. As such it would be a weak design if institutions in only certain geographical regions were included in the sample. Secondly, the researcher has never trained at another university and is not very familiar with training models at universities other than those of the University of Pretoria. Other training models could also include distance and telematic education.

As this study is positioned in the discipline of psychology, it is important to tell the story from this perspective. Psychology departments thus formed the main thrust of the rationale for sampling.

However, the wider context of the social sciences is needed to discover the direction of social science research and to try to place psychology within this debate. The researcher was thus searching for different and similar courses to and within psychology. Also, it was important that the potential participants would be able to provide the researcher with enough information about the construction of their particular course. Where possible, academics who are involved in not only lecturing, but also constructing the course were targeted.

To summarise, the following guidelines where used to select the courses:

- Discipline (with psychology in the majority)
- Type of course in terms of the categorisation provided in section 4.5.3.1
- Diversity of institution in terms of geographical location (linked to the nine provinces in the country)
- Diversity of institution in terms of training model (distance, telematic or face-to-face interaction)
- Diversity of institution in terms of language of instruction
- Diversity of institution in terms of categorisation in the previous education system
- Ability to provide the researcher with adequate information

Once these guidelines had been finalised, the researcher mounted the profile of each course on a wall keeping the courses separate according to the four categories discussed in section 4.5.3.1. Each category was examined as a whole and courses were selected from the category that would offer the maximum range in terms of the guidelines above. The way in which respondents were consequently contacted is discussed below.

4.5.3.3 Contacting the participants

Once the courses had been selected, the researcher attempted to contact potential respondents. This was done mainly through e-mail. The researcher used department's websites to get addresses for the heads of department, contacted them and gave them a brief description of the project. They were then asked for the name of the person principally responsible for the under-graduate research courses. Most of the heads of department replied providing an e-mail address of the person involved. Whitley (2002) suggested that potential e-mail participants first be contacted with a message that informs them of the research and asks whether they would be willing to participate after which the questions can be sent. This message is contained in Appendix C. People whose information could not be gained from a website were contacted telephonically to request their participation and to get their e-mail address so that the questions could be sent. If face-to-face participants indicated that they were willing to participate in the study, the researcher made appointments with them and arranged an interview in the respondent's office at a time convenient to him or her. The researcher did not want to impose on the private lives of the respondents by conducting the interviews after hours, especially as the topic was directly related to their work activities. Respondents contacted via e-mail were more flexible in terms of when they could

complete the interviews electronically (discussed in more detail in the sections that follow). Although this research is not about the personal lives of the interviewees, the researcher enquired from the respondents whether or not it would be possible to mention characteristics such as their substantive discipline, the nature of their course, the nature of their own training, and their epistemological orientation. The researcher guaranteed their anonymity by not naming specific universities.

In some cases the researcher discovered that departments contacted at the initial stages of the research had changed their under-graduate courses so dramatically that research methodology no longer formed part of the curriculum. Also, some participants were not available due to overseas visits or other commitments. In these cases, the researcher attempted to replace the selected course with another course that resembled the initial sampled unit as closely as possible.

4.5.4 Generation of the text

In this section two approaches to the collection of the data are described: face-to-face interviews and electronic interviews. The researcher provides reasons for her choice of both methods and a comparison of the two varieties will be done in the chapter that follows. This contrast can be used to add to the scarce body of literature on methodological implications. As Hine (2000) pointed out, the use of both face-to-face and electronic interviews may be seen as a form of triangulation although in this case electronic interviews are conducted for practical reasons with different participants in addition to the face-to-face meetings. Triangulation to enhance authenticity[8] in Internet research is predominantly used in cases where the researcher sets up meetings with on-line participants.

4.5.4.1 The case for face-to-face interviews

In the perspectives on interviewing described earlier some positivist notions about the nature of research were questioned, notably by authors such as Scheurich (1997). Scheurich, however, does more to criticise conventional and post-positivist interviewing and does not make many tangible contributions to how one should go about the process. This may be purposeful in order to avoid the modernist assumption that an interview situation can be defined in a specific way and that all interviews will conform to certain conventions. He does, however, provide some general recommendations for anyone attempting to avoid research based on positivist assumptions (see section 4.5.2.1), and some of these recommendations will be used for the methodology of this research. Critical social theory is also flawed in that it has not done more to develop an alternate view of methodology (Alvesson & Sköldberg, 2000). Some authors, most notably Alvesson and Sköldberg (2000), have attempted, however, to provide some

[8] The search for authenticity could raise the question of whether research surrounding electronic communication can be accurate, legitimate or valid. Space does not permit an adequate discussion of this issue and the researcher would also argue that this question is not applicable to the research she is undertaking due to the nature of the participants and the topic of the study. If it does arise during the analysis, however, the researcher will follow Hine's (2000) recommendation of keeping authenticity central to the analysis, but not assuming that it exists as a problem even before the research is undertaken. What is interesting to note is that there are different discourses surrounding authenticity: firstly for the participants and secondly for the academic rules that form the context of this study. The researcher needs to 'translate' the results of each one for the benefit of the other. What makes this research more complex, however, is that it is taking place *within* academia *for* academia with specialists in research methodology and with the purpose of attaining an academic qualification. The way in which authenticity plays itself out in this situation could be different to that proposed by Hine.

useful strategies and assumptions for non-conventional interviewing. It is their ideas that the researcher has turned to for thinking about her interviews.

Conducting interviews with the selected respondents thus generated the text for part 2. A blurring of some of the perspectives on interviewing described above (interpretive, post-modern and critical) transpired although the researcher was heavily influenced by the tenets of critical theory to inform the questions that were asked. The interpretive perspective is embedded in the aim of eliciting the meaning that the constructors of the courses attach to those courses, although from a critical perspective the researcher must acknowledge that this empirical material will not sufficiently explain the social context and meaning as well as the individual conscious processes that have led to the product. This describes the totality-subjectivity combination concept in critical social research that posits that only limited aspects of a phenomenon can be known in any given study and thus that empirical material should be limited (Alvesson & Sköldberg, 2000; Reichardt & Rallis, 1994a). Scheurich's (1997) post-modernist perspective also conceded "that much of what we do, verbally and non-verbally is not available to our consciousness" (p. 67). The post-modern reading of power in the interview situation and the critical viewpoint that empirical material is not sufficient to illuminate all aspects of a phenomenon intertwine to suggest that the interviewer and interviewee are making meaning in a specific interview situation, that the data collected in the interview does not represent a 'reality' and that there are multiple voices that cannot all be present at the specific time of the interview.

To allow for the level of interpretation demanded by critical theory, and indeed by good qualitative analysis of data, two questions were perceived as fundamental: "*How* did you go about constructing your research course?" and "*Why* did you construct it in this way?" Terre Blanche and Kelly (1999) made the point that 'why' questions can lead to difficulties in an interview as people are not always able to explain their motivations for doing, saying and thinking something. They rephrase 'why' questions to "Tell me what was going on in your thoughts when …" to give the researcher the answer to the 'why' question. This manner of questioning is, however, debatable from a discourse analytic perspective "as the self is not coherent, but is positioned and positions in multiple, shifting discourses" without a coherent personality that can be studied (Francis, 1999, p. 384). Discourse analysts therefore study spoken and written texts instead of the 'thought' of a person. This study will not be making use of discourse analysis, but does acknowledge that during the interview the researcher does not necessarily access a coherent thought process or personality. The answers to the 'how' question in this study were expected to be of a more technical nature, for example, textbooks that were examined, whereas the 'why' questions could provide material for the motives underlying actions, thoughts and speech, although it was expected that the answers to both questions may also become blurred. Some questions that, in the researcher's opinion, could provide useful additional information were listed below the original questions. If time allowed and the respondent did not spontaneously discuss these issues, the researcher raised them in the interview. The interview guideline is presented in Appendix D.

The questions using 'how' and 'why' to interrogate the phenomenon is a point where critical theory (as described by Alvesson & Sköldberg, 2000) and qualitative research (as described by Chamberlain, 2000) coincide. Critical theory uses how and why questions to uncover the conditions that lead to taken-for-

granted practices: what they mean, where they come from and what consequences they might have. Although Chamberlain (2000) admitted that analysing data on a descriptive level is also necessary for some purposes, he claimed that good qualitative data analysis moves beyond this level to one of interpretation. Many novice researchers make the mistake of focusing on methods that produce data and then present their 'findings' at a descriptive level. More will be said about the data analysis in the section that follows. As Chamberlain (2000) put it, researchers remains on the descriptive level if they categorise and illustrate what the interviewees have said. In contrast, interpretation provides answers to questions of 'how' and 'why'; the connection and interrelationship between themes is sought. How and why respondents frame certain phenomena and the way in which that framework functions in a certain context is the aim of an interpretive analysis. The researcher is not trying to naively suggest that asking respondents in this study how and why they constructed their curricula in a certain way will give answers corresponding to the how and why of interpretation. Rather, what the researcher is attempting to achieve is a provocative and insightful account of what is taking place by using two questions that she believed would provide the basis for her to interpret what is happening. Additional questions were also included in the interview schedule, but would only be posed to the interviewee if the information was not divulged voluntarily.

The researcher also considered the implied suggestion made by Scheurich (1997) that in order to capture the full context in which the interview takes place, it would be necessary to somehow record the verbal and non-verbal cues in order to analyse this information with the text. Modern technology would allow a video recording with sound to comply with this suggestion[9]. The logistical problems, however, of acquiring, transporting, setting up and utilising the necessary equipment made it seem more problematic than problem-solving. Also, the researcher did not want to detract from the aim of this part of the study, namely, to gather as much information about course construction as possible. She also did not want to lose valuable time for the sake of 'correct' methodological procedures. Even though technology is taken for granted in the age we live in, it may also have an 'observer' effect on respondents, in other words, they may concentrate on the recording and not only on the topic at hand. The researcher therefore decided to make use of detailed field notes to capture the aspects such as tone of voice, body language, hesitance, silences and any other non-linguistic expressions that are excluded from the transcription (Terre Blanche & Kelly, 1999). Any possible gender issues from a feminist perspective (as discussed in section 4.5.2.2) would also be included here. As Taylor (1996) noted, there is very little literature available on the power relationships between a female interviewer and male interviewee. Reflexive issues in the form of critical self-reflection would also be recorded for analysis with the text. The interviews were tape-recorded - with the respondent's permission - so that the researcher did not have to depend on her memory to remember what respondents said and could concentrate fully on the interview and observing the respondent as the conversation progressed.

[9] At the time of writing this section the researcher was not privy to the fact that Scheurich does indeed encourage the use of video recordings of interviews (see Gergen & Gergen, 2000).

4.5.4.2 The case for electronic interviews (e-interviewing)

Due to time, financial and practical constraints, the researcher found herself facing a dilemma of how to collect the necessary material for part 2 of the study. Without having to travel (probably alone) around the country to conduct interviews. Telephonic interviews were a possible alternative, but the relatively high cost of making national calls at peak times (during respondents' office hours) made it an expensive option. Furthermore, telephone conversations are difficult to record, which places all the responsibility on the researcher to accurately remember what was said; other methods thus needed to be considered. The

researcher decided to make use of electronic communication on the Internet[10] to contact and gather information from respondents, using and adapting principles of established methods of interviewing. This electronic form of gathering data is referred to as e-interviewing (Bampton & Cowton, 2002). Traditionally, the classical route of qualitative research (such as ethnographic studies) has entailed the researcher travelling to a physical 'place' to be able to capture the nuances of the context where the topic of interest occurs. The visit to the place that provides the interactions that the researcher is interested in studying thus gives researchers the necessary authority to speak about the phenomenon as they have first-hand experience of the field site. What distinguishes the 'serious social scientist', however, from a casual observer is the action of doing research, of asking questions and making interpretations based on what researchers see and hear. The subjects of the study are also excluded from this 'ethnographic authority' as the power of analysis resides with the ethnographer alone in most cases (Hine, 2000).

Face-to-face interaction in the field is thus the paramount criterion for giving researchers the authority to analyse and interpret their findings. As the interaction that occurs on the Internet is a form of socialising, Hine (2000) argued that although most Internet documents are textually based (face-to-face video communication may change this), they are still a particular type of interaction between people. Hoshmand (1999) made the statement that "… not only are narrative texts of self-interpretation important, but the texts of living or historical enactment of texts of identity by individuals and groups can be subjected to hermeneutical analysis" (p. 20). Researchers thus need to examine these writings in order to understand the meanings that people convey through this medium: "Texts are an important part of life in many settings which ethnographers now address, and to ignore them would be to produce a highly partial account of cultural practices" (Hine, 2000, p. 51).

There are many examples of qualitative researchers having transcended the notion of traditional ethnography to embrace the Internet as a medium to engage with participants in research projects. For example, focus groups, traditionally a face-to-face qualitative method, are now also being facilitated via

[10] Hine (2000) defined the Internet as "a network of computer networks all sharing TCP/IP as their communications protocol, which allows messages to be sent across the network to specified addresses" (p. 159). The purpose of the Internet is the facilitation of communication between people. This is in contrast to the World Wide Web (WWW) that allows people to develop their own websites and make them available to Internet users. Although both these electronic forms have the purpose of communicating a message, the Internet is probably more purposeful as messages are directed at specific (albeit unknown in some cases) people whereas the WWW is a more passive means of communication.

the Internet in real-time in spaces such as chat rooms (e.g. see Greenbaum, 1998). Much of the literature available about the methodological aspects of such research still prefers to focus on the information obtainable from existing places on the Internet and how to use what is available (e.g. see Branscomb, 1998; Campbell & Campbell, 1995; O'Brien Libutti, 1999; Stein, 1999).

Many social scientists (see Bampton & Cowton, 2002; Gergen & Gergen, 2000; Rademeyer & Wagner, 2002; Whitley, 2002) have, however, written about how the electronic medium mediates between researchers and the phenomenon they want to research. As Sudweeks and Simoff (1999) pointed out, the steps of traditional research methodology cannot always be applied directly to Internet research. They argued that the ontological and epistemological tenets of Internet research differ from those of the classical research tradition. For example, assumptions regarding knowledge and information are questioned on an epistemological level; are people placing information or knowledge on the Internet? These types of questions imply that researchers working through the Internet should be familiar with these distinctions and how they apply to the project that they are undertaking. As this study targets a specific group of people and is only using one of the communication formats of the Internet (e-mail) as a means to gather data, some of these issues may not be relevant. What is important, however, is the issue of ethical Internet research highlighted by Sharf's (1999) discussion on the subject. Especially relevant is Sharf's point about the risk taken by respondents involving who will receive the information they volunteer and for what purposes this information will be used. The researcher thus first contacted each e-mail participant and explained that only she would have access to the primary data, that what respondents said would not be connected with them as individuals and that the information would be used as part of a doctoral study and possible research output in the form of conference papers and journal articles. This introductory contact was also important to motivate participants to take part in the research and should constitute the first part of any e-mail survey. After this initial contact, the research instrument may be sent to respondents who consent to being part of a study (Witmer, Colman & Katzman, 1999).

For consenting interviewees who were inaccessible due to distance and other constraints, three questions were sent via e-mail. Besides the 'how' and 'why' questions put to the face-to-face participants, the following was asked of the electronic respondents: "Tell me what was going on in your thoughts when you were answering the previous two questions". Although this seems contradictory to critical theory's stance on the impossibility of uncovering the total social context and individual meaning or consciousness (Alvesson & Sköldberg, 2000), the researcher needed something to replace the non-linguistic cues that would otherwise be available to her in the face-to-face situation (Bampton & Cowton, 2002). A space was also provided in the electronic document for respondents to give a short description of their scholarly and academic careers. The introduction in the e-mail message encouraged the participants to answer the first two questions before turning to the last two (see Appendix E for the e-interview schedule). The additional questions used in the face-to-face interviews were not included in the schedule. Although Witmer et al. (1999) could not find a significant difference between the response rates of shorter and longer versions of a questionnaire, they question some of the methodological problems inherent in their experiment. The researcher did not want to burden respondents with long questionnaires and intuitively kept the questionnaire short.

Once the responses were received the researcher immersed herself in each response and established whether she needed to follow up on any issues that she felt needed further clarification. Using personal e-mail communication thus allowed the researcher to ask authors of texts to clarify meaning, just as one would be able to do in a conversation. From a post-modernist perspective, however, Scheurich (1997) criticised the modernist idea that researchers would be able to resolve all the ambiguities that they might feel are present in an interview. Some ambiguity in the electronic texts of the respondents will therefore always exist and other interpretations of what was said will be made. Bampton and Cowton (2002) referred to the use of more than one interaction with a respondent to collect data as 'episodes' and pointed out that these episodes can be used to limit the length of the initial questionnaire, and thereby hopefully increase the response rate. Although this approach is interactive and allows an emergent design by following up from the first response with more questions, Bampton and Cowton reported that episodes could become a 'nuisance' to respondents. Respondents' reactions to the initial questions within the context of e-interviewing in this study will be described in chapter 5.

Another drawback of using e-interviews is the assumption that all potential participants are equally technically skilled in electronic communication (Sudweeks & Simoff, 1999). As Sudweeks and Simoff stated, computer literacy is a problem for many Internet users. Also, people are being bombarded with masses of information causing a potential overload. It was therefore possible that potential respondents would ignore the researcher's e-mails. These issues and how they played out in this research project will be discussed in the final chapter.

4.5.5 Analysis of the text

In this section the analysis of the interviews is described. Firstly, the reader is informed about how the text was prepared for analysis and the rationale behind this preparation. It is also important to assure readers that a critical interpretation was applied to the text and to explain how this was achieved. The way in which the researcher's voice affected this process is described, but will be explicated more fully in chapter 6.

4.5.5.1 Preparing the text for analysis

Once the interview is complete, some authors of books on qualitative research (e.g. see Mishler, 1986) recommend that in order to analyse and interpret the data, the recorded tapes should be systematically transcribed. The transcriptions should be written down verbatim following the verbal statements made by respondents. Potter and Wetherell (1987) provided a list of conventions that can be used during the process of transcribing to ensure that the text that is generated accurately reflects the interview(s) that took place. The text can then be analysed in various ways such as dividing the speech into meaning units and then coding these units, turning words into numbers. Categories can also be developed from the units. The claim is then made that an accurate and valid representation of what the interviewee said has been attained. Scheurich (1997) argued, however, that these technical procedures that were developed in keeping with the rigour of scientific method have certain consequences: the unstable

ambiguities of the meaning of verbal communication are hidden, the presence of the researcher's modernist assumptions are absent, the text is decontextualised and simplified because "all of the juice of the lived experience has been squeezed out, all the 'intractable uncertainties' and the unstable ambiguities have been erased" (p. 63). In addition, generalisations are constructed from the decontextualised units of meaning. The text thus becomes an interaction between the conscious/unconscious researcher and the data without its original context; the research methods mirror not reality, but the ideology of the modernist researcher. Polkinghorne (1983) posited that "[t]he data are not the containers – the marks on the paper or the sounds on the tape. The data are the meanings themselves" (p. 268) and Polkinghorne thus recommended that "... the researcher needs to take care and understand when linguistic data are transferred from the oral mode to the written mode" (p. 268).

The point that can be taken from these arguments is that the researcher should not rely on the accurate transcription of an interview to validly represent what the interviewee said ('reality'). Also, by reducing what was said in the interview to codes or meaning units, the data is taken out of its context. The disadvantage of adhering to this perspective, however, is that if researchers needed a written copy of the interviews for purposes of memory recall (which in this case was necessary) then they would have to 'transcribe' the cassettes themselves to be able to fill in the context and atmosphere of the interview. The researcher thus considered it necessary to transcribe her tape cassettes herself. Although this was time-consuming, it allowed her to immerse herself in the interviews and recognise things that were not as prominent during the course of the interview. The field notes made by the researcher were also laid side-by-side with the transcriptions to enable a contextual analysis of the data. This process is advocated for interpretive interviewing (Terre Blanche & Kelly, 1999), although in this study the data was analysed from the critical perspective, as described in the following section.

4.5.5.2 Ensuring a critical reading of the text

As discussed in section 4.2 it is necessary for researchers to avoid reproducing established patterns of thought. Researchers must exhibit a critical and reflective attitude towards the empirical material. For this reason Kelly (1999) provided seven questions that researchers can use to achieve a critical level of enquiry instead of merely finding evidence for what they assume about the social phenomenon. These questions were used to explore the text that was generated from the interviews conducted with the sample described in section 4.5.3:

- Are there possible exceptions to what has been found, but which the data simply has not showed up or included at the level of sampling?
- What unquestioned assumptions, ideological position and unreflected-upon points of view lie behind the emerging account?
- Has the emerging account become rigid, so that it is no longer responsive to being changed by the emerging material, or is it 'porous' (permeable), where the meaning of terms is mutable and open to reinterpretation?
- Are terms used in an over-general or technical way such that their contextual meaning is not apparent?

- Is the emerging account based on often-repeated metaphors which are a screen for a lack of understanding?
- Is the account becoming self-referential - the meaning of term A defined by term B, which is defined by term A in a circular fashion?
- Has the researcher learned anything from the data or simply used the data to illustrate and 'flesh out' a theory?

As discussed earlier in this chapter, conventional critical theory limits the use of empirical material (data such as observations) so that the emphasis is on the critical in-depth study of aspects of a phenomenon chosen by the researcher. Or, as Alvesson and Sköldberg (2000) described it, there can be a focus on empirical material that is interpreted from a critical emancipatory[11] perspective. In this approach the meanings that research participants construct are combined with critical assumptions. Thus the 'reality' that constructors of under-graduate research methodology courses experience is interpreted within critical theory where it is suitable. The researcher therefore does not attempt to close the gap between theory and empirical observations (Alvesson & Willmott, 1996).

Another important component of critical research is the level on which it engages with phenomena. Alvesson and Sköldberg (2000) described simple, double and triple hermeneutics and placed critical research in the last category. Level one, simple hermeneutics, reflects individual interpretation, that is, a person's constructed 'reality' and the meaning he or she gives to his or her lived world. On the second level, double hermeneutics encompasses the interpreting social scientist who examines individuals in their lived world and attempts to make meaning of and develop knowledge on the person's reality: "social science is thus a matter of interpreting interpretive beings" (Alvesson & Sköldberg, 2000, p. 144)[12]. The category that critical theory falls into, triple hermeneutics, includes the simple and double levels, but goes further on the level of interpretation to examine the context from the outside (Terre Blanche & Kelly, 1999). Critical researchers interpret material that is seemingly 'natural' and 'spontaneous', but besides levels one and two also look for the unconscious processes, ideologies, relationships of power and dominant patterns of thought (critical-political dimension) included in such material. Figure 11 demonstrates the three levels of hermeneutics and what they entail:

[11] Kincheloe and McLaren (2000) highlighted the need to be careful of using terms related to the word 'emancipation'. As they pointed out "… no-one is ever completely emancipated from the sociopolitical context that has produced him or her" (p. 282).

[12] The problem with most qualitative research, according to Rennie (1999), and most especially with double hermeneutics, is its failure to resolve the objectivism-relativism duality. Rennie (1999) provided ways for the qualitative researcher to "bring objectivity back into the picture" (p. 7) by, for example, "giving full rein to reflexivity" in order to objectify the researcher's subjectivity and make the research more robust. The necessity of reflexivity was discussed in the previous chapter and a reflexive account of the research process will be provided in chapter 6. The researcher has not, however, subscribed to reflexivity as a necessary evil in the fight against subjectivity but as an acknowledgement that research takes place in a specific context that is created in the interaction between researcher and researched. This statement may itself seem to subscribe to relativism. By saying that qualitative researchers need to objectify their subjectivity, Rennie (1999) could be accused of rendering objectivity central to qualitative research and thus of reproducing positivist notions of the importance of objectivity.

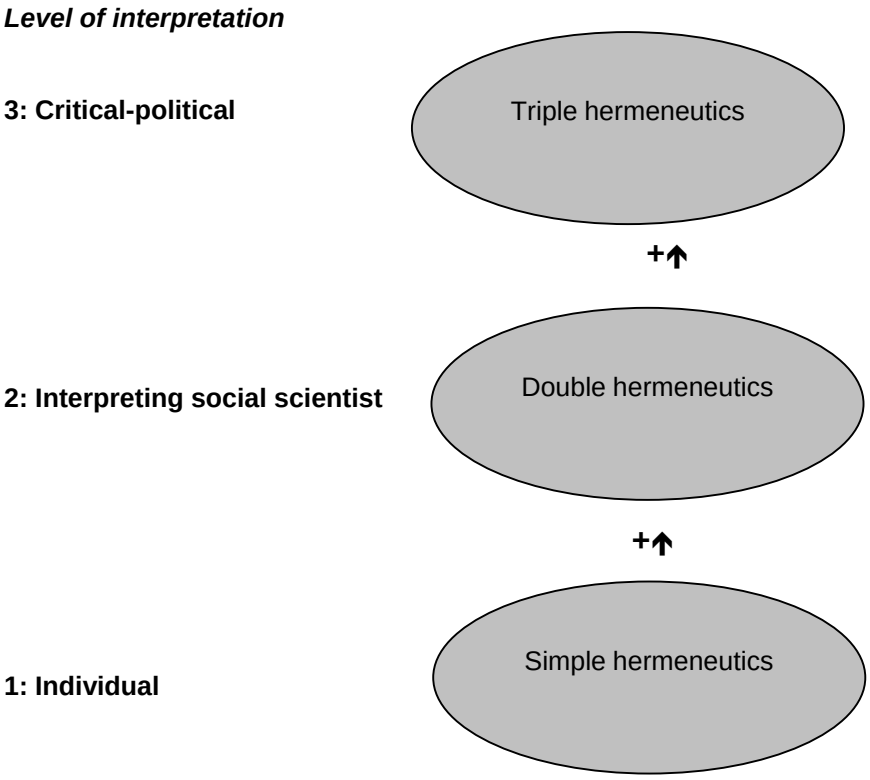


Figure 11 Simple, double and triple hermeneutics: levels of interpretation

It is, however, not necessary to give the critical-political element (also termed ideological-political by Alvesson & Sköldberg, 2000) all the focus in a research project. This is what was referred to in section 4.2 as a minimal version of critical research where researchers are at least aware of the 'ideological-political' context they are working in and avoid lending credence only to dominant interests. The tension between the reproduction or reinforcement of existing social norms and challenging those norms should be evident in the research project. This component is elaborated on in the section that follows.

Alvesson and Sköldberg (2000) provide some fundamental aspects of a critical approach for the analysis of social phenomena. Essential to this approach is the way that distance is conceptualised in research conducted from a critical perspective. Although researchers may change between parts and wholes or come close to the data and then move further away, it is important to maintain enough distance so that the social, historical and economic spaces that dominate the context are clearly visible. This is also necessary so that researchers are not blinded by meanings that are common within the context: "[w]hat seems natural and self-evident should be problematized" (Alvesson & Sköldberg, 2000, p. 136).

Before the principles of data analysis are described it is necessary to make a distinction between what critical researchers term surface structure and deep structure. The level of existence that people operate on that seems natural, logical and understandable indicates the surface structure of their worlds. Underlying this structure are certain often taken-for-granted beliefs and values that inform the way we think and behave. This is therefore referred to as the deep structure. The aim of a good interpretation is to discover the phenomenon's deep structure, to challenge and problematise it. The interpretation will thus attempt to discover the values and beliefs that underlie the structures and practices that maintain

certain relationships of power in society (academia in this case). Questioning people's false consciousness will position their thinking as a problem or barrier to achieving their highest potential (Habermas, 1984). Two complementary methods will be used firstly to describe the surface structure and secondly to demonstrate the origin of the processes that influence the deep structure or underlying beliefs and values of lecturers who develop under-graduate research methodology curricula.

In the next chapter a description of the content that all interviewees have in common (or which is unique) will be provided until all the stories have been told. The content will then be followed by the researcher's interpretation of where the ideas or concepts originated. According to Alvesson and Sköldberg (2000), this two-fold manner of interpretation is essential in critical research. These authors use the terms 'false', 'misleading' and 'blocked' when describing the ideas that people may have so that a critical interpretation of a phenomenon is justified. The researcher does not, however, want to make value judgements over colleagues, and therefore subscribes to Alvesson and Sköldberg's second criterion, that of wanting to establish whether or not certain ideas are dominated by one-sided arguments or powerful groups and traditions. If the researcher finds any evidence that supports the first criterion she will mention it, although she may in turn be placed under the same critical scrutiny about her values and beliefs.

The data will also be subjected to the principle of negation. According to Alvesson and Sköldberg (2000), the act of negating patterns of ideas is essential for interpreting material from a critical perspective. Negation is achieved when researchers think dialectically, in other words, when they look for the alternative viewpoint from the one provided by the respondent. Tension exists between what Alvesson and Sköldberg (2000) termed 'the established order' and 'the transcendental' (meaning that which is universal, general, not variable): "[i]t is about making the familiar foreign (*Entfremdung,* estrangement), about problematizing the self-evident and pointing out that future realities need not be a reproduction of what exists today" (p. 139). As these authors suggested, the development of an alternative viewpoint (utopia as they call it) may once again lead to the dominance of this other idea over the taken-for-granted system already in place. This is not, however, what a critical interpretation seeks to achieve, and the counter-viewpoints that the researcher will attempt to establish should not be perceived as the utopian alternative, but as an attempt to clarify the phenomena that are being studied. Negation will thus form the final part of the analysis.

These processes of data analysis will take place within the hermeneutical circle. The researcher attempts to uncover the socio-historical forces that underlie the text and studies how parts are linked to the whole and how the whole relates back to the parts. The abstract, general, larger whole forms the wider context in which the concrete, specific actions of the individual are assessed. By focusing on the parts, researchers are able to bring the reader to a closer understanding of individuals' life-worlds, but also the circumstances that brought them to their current status. Placing the parts into a particular space is a specific contribution that critical hermeneutics makes to refurbishing the contextual vacuum left by the traditional search for generalisable knowledge. Kincheloe and McLaren (2000) use the metaphor of building a bridge to describe what qualitative research from a critical hermeneutic perspective entails. Researchers "build bridges between reader and text, text and its producer, historical context and present, and one particular social circumstance and another" (Kincheloe & McLaren, 2000, p. 286). What is also

important, according to these theorists, is the hermeneutical process of using an author's answer to a question for the basis of a new question. Researcher's are therefore not in the business of analysing in order to reproduce answers to initial questions. These new questions are shaped by the researchers' social, cultural and historical situation – the interpretive lens that we use as a basis for our claims – and as such are in constant flux in conjunction with the spirit of the times.

The ultimate interpretation of the data may, however, not reach a 'neat', 'finite' or coherent conclusion. This is because the researcher recognises that it may not be feasible to integrate divergent perspectives into one Truth or generalisable law for all the cases and that it may be more informative to give separate voices to conflicting viewpoints about under-graduate research methodology curricula if they exist in this way. Although critical researchers do not claim a privileged position of authority and are limited by their adherence to the context in which they do their research, the hermeneutic process allows them to form a better understanding of the phenomenon and live themselves into the experience that they encounter (Kincheloe & McLaren, 2000).

The ease of the analysis should not be taken for granted. Although the quote below does not apply directly to this study as intensive cultural observation is substituted with interview material, this lengthy statement by Hoshmand (1999) confirms the complexity of a critical analysis:

> Knowing how to conduct narrative research does not fully prepare one to assume the critical hermeneutical role. The latter calls for more attention to the socio-political aspects of knowledge and the deconstruction of cultural texts. It involves an intentional effort in uncovering cultural and political assumptions, with the aim of empowering the less vocal and those who have been subjugated by the existing social structure and dominant discourse. To participate fully in the hermeneutical process, qualitative researchers would have to be immersed in their understanding of culture and become astute cultural observers. Cultural study requires the types of intensive local observations at which qualitative researchers are supposed to be skilled. Also required would be reflexive understanding of psychology as a cultural science and a willingness to deconstruct our own theoretical narratives (p. 20).

Kincheloe and McLaren (2000) provided the following advice to critical researchers:

> The production of such thick descriptions/interpretations follows no step-by-step blueprint or mechanical formula. As with any art form, hermeneutical analysis can be learned only in the Deweyan sense – by doing it. Researchers in the context practice the art by grappling with the text to be understood, telling its story in relation to its contextual dynamics and other texts first to themselves and then to a public audience (p. 286).

The method of analysis described above is therefore only a broad guideline and the researcher will follow Kincheloe and McLaren's advice and 'just do it'. To summarise, the data analysis rests on the following assumptions:

- By perceiving the phenomenon the researcher has already begun interpreting.
- This interpretation is made within the boundaries and through the lens of the researcher's personal and professional world.
- Although there is no fixed method for making interpretations, the researcher has adapted some elements of Carspecken's (1996) approach to critical analysis as discussed below.
- Although a fixed method is elusive, important principles that will inform the data analysis are firstly, the social and historical factors that surround the phenomenon, secondly, understanding the surface and deep structure of the data and thirdly, positing alternatives (negations) for the taken-for-granted knowledge that the text creates. These processes will take place within the hermeneutical circle described above.
- The researcher does not make a final claim of authority for the interpretation that she makes of the data.

4.5.5.3 Performing a reconstructive analysis on the data

In this section the researcher will explain how the data were analysed using thematic analysis within a critical hermeneutic process of interpretation and meaning reconstruction. Elements of Carspecken's (1996) approach on how to analyse data from a critical hermeneutic epistemology have been adapted and applied to the interview material collected in part 2 of this study. The researcher selected certain aspects of Carspecken's work, as his method of data analysis is meant to be inclusive of a combination of ethnographic and other forms of data generation such as interviews, and because he also encourages critical researchers to use the methods separately if necessary. Many other qualitative data analysis methods, for example discourse analysis, would be suitable for analysing the data. There are a number of reasons for choosing the method described below. The method fits into critical hermeneutic research and is clearly defined by a self-proclaimed critical researcher, Carspecken (1996). Most qualitative (if not some quantitative) researchers will be familiar with the method of thematic analysis. By including coding as a complementary technique to thematic analysis, the researcher was able to distinguish patterns "where we identify a 'type' of occurrence by virtue of it being perceived as an underlying 'common form' found in different contexts" (Kelly, 1999, p. 412). Familiarity with thematic analysis renders it easily understood by others and the explicit explanation of its application below means that it does not result in unnecessary confusion about how the researcher conducted the analysis. Also, this method provided a clear structure for the researcher to work with and allowed for validity checks later on in the analysis as well as peer debriefing (see section 4.6).

Once researchers have recorded each respondent's interview in a word processing file coding the data set can begin. Not only is coding necessary for researchers to become aware of patterns in the data and group them together, but uncommon or unique features of the data can also become apparent. This in turn enables the researcher to choose suitable parts of the data for meaning reconstruction (fleshing out and explicitly stating what is said by respondents). The way in which the researcher performed meaning reconstruction in this study was by putting into words - on a low level of inference, that is, remaining close to the interview data – the meaning of what interviewees were conveying to the interviewer about their research course.

The coding method consisted of seven steps adapted from Carspecken's (1996) suggestions for coding. This process begins when researchers open the first word processing file containing the data that they want to code. As the current researcher had recorded each interview (or made a copy of the e-interview document) in a separate file all the different files were opened. In step two the researcher opened a new blank file on the screen. Step three consisted of reading through the data in each file that contained data. If the researcher noted something important enough in a file to code, the section was copied and pasted into the blank file and given a code. The researcher tried to keep statements that held similar meanings within and between files together for later convenience. In the fourth step the researcher continued to read through the interviews and noted any differences within an established code, giving sub-codes to opposing or distinct statements. A hierarchical structure of codes was generated in this way. In step five the researcher completed the coding by reading through all the interviews and generating all possible codes or adding to existing codes. An example is provided below where an abstract of one of the interviews appears with the codes given to the various statements. The underlined part of the paragraph pertains to the first code while the italicised part refers to the second code, and so on.

Almal het dieselfde denkrigting wat dit aanbetref gehad want ons het besluit *jy kan nie inleidende navorsing, fundamentele navorsing vir 'n student leer as jy dit nie vir hom in 'n logiese patroon gee nie as jy hom nie logies deur die hele proses neem nie.*	Course developed by means of consensus [01] Research is a logical process and students should be taught this [02]
Wel, my uitgangspunt is navorsing is 'n proses, as jy hom nie logies deurvoer van begin na einde toe nie gaan die navorsingsproses of onwetenskaplik raak of jy gaan die ding iewerste verloor so ons het die logiese begin by wat is navorsing en dan die teoriee wat dit onderle en die logiese stappe wat dit volg …	Research is a logical process and students should be taught this [02]

Once the codes were established analytical emphases were chosen on which to base the meaning reconstruction. Carspecken (1996) noted that many criteria could serve to place emphasis on certain aspects of the codes, but that the validity of the emphasis should be foremost in the researcher's mind (this is discussed in section 4.6). The coding structure generated from the five steps above is still 'raw', according to Carspecken (1996), because no organisation of the codes has taken place. Redundancies and intersections between codes still exist and researchers need to pull these codes together. This forms the sixth step of the data analysis where researchers group certain codes and sub-codes together in categories. To facilitate the researcher's task of keeping an uncomplicated appearance in the presentation of the findings, those codes that formed part of a category were renumbered so that they followed a sequence from [01] to [..] across the categories. For example codes [01] to [03] were placed in the first belief category 'Under-graduate curricula should be developed by means of consensus', codes [04] to [05] were placed in the second belief category 'Under-graduate research methodology curricula should be constructed based on the expertise and research experience of academics' and so on. The eventual categories that the researcher formed from the interview data were based partly on suppositions made by the researcher from the findings in part one of the study, the focus of the study and discussions

with her supervisor (as a form of peer debriefing). Nonetheless the researcher attempted to remain as close to the data as possible at all times.

The final part of the analysis, step seven, is to name and then flesh out each category to again ensure that the codes for the category fit the statements made by respondents or that a category is robust enough to stand on its own. The criteria that the researcher used to establish a belief category were derived from the codes that were merged in a category and are listed under the heading of the belief. The criteria may reflect alternative points of view amongst respondents. Some overlap between responses in categories does occur where a response refers to two or more beliefs and therefore needs to be placed in two of the categories; not all categories are therefore mutually exclusive. For example, belief 5 encapsulates ideas about traditional ways of constructing research courses that are often critiqued because of social, political and/or economic factors that have changed (belief 9).

Meaning reconstruction is a hermeneutic process. This process is not only applicable to an academic analysis of an event or interaction; it is an aptitude that people use everyday to understand the actions of others. The act of interpretation is thus common to all of us. The hermeneutic process is usually referred to as a circle that can be described in terms of phases. We are not necessarily aware of the step-by-step procedures that we go through when inferring meaning; when we interact with others we instantaneously and holistically form an impression of what the person is presenting to us (Carspecken, 1996). Naturally there are many different types of meanings that can be portrayed in an interaction. The way in which researchers understand what the interviewees are saying to them depends on their own assumptions and context. Willig (2001) argued that “these are not seen as ‘biases’ to be eliminated; instead they are seen as a necessary precondition for making sense of another person’s experience” (p. 66). Knowledge generated in this manner therefore becomes reflexive, according to Willig, as the researcher’s role in knowledge production is recognised. Meaning reconstruction is therefore not the focus of this analysis, but rather the emphasis is on the union between the researchers’ reference system (what is familiar to them) and the reference system of research participants that is not familiar to researchers. Hermeneuticians assume that the reference system of participants is unfamiliar to researchers, but in the case of this study the researcher knows many of the aspects that academics are grappling with regarding under-graduate methodology courses. Nonetheless, the researcher and the participants brought certain baggage (social and cultural background) to the interviews and thus the challenge was to achieve a viewpoint that coincided with both of these realms, referred to as a fusion of horizons by Gadamer (1989).

Within the coding steps described above there are a further five steps that form the hermeneutic circle of interpretation. This process is described briefly below (adapted from Carspecken, 1996) with specific reference to how the researcher implemented these steps:

- Step 1: Virtual intersubjectivity

This entails a person (the researcher in this case) subjectively taking the position of an actor (the interviewee) as well as the position of those not directly involved in the act, but that are part of the act through virtue of their connection with the actor. In other words, the researcher experiences and infers

meaning from the action or speech of the actor as the actor might experience or mean it: “The interpretive act explores not the text, but the world displayed by the text from the perspective of the author” (Pujol & Montenegro, 1999, p. 92). This intersubjectivity is virtual because researchers must consciously imagine themselves in each of the positions of the people involved and make these thoughts explicit. Thus, while reading through the transcripts and notes of the interviews, the researcher imagined herself in the position of the lecturers constructing their courses, the position of the rest of the department in constructing the course and the position of the students who received and became involved in the courses.

- Step 2: Meaning-making through familiarity with the culture of the actors

According to Carspecken (1996), the person who takes the position of the actor(s) is able to do so because he or she is familiar with the culture of the actor(s). The researcher's position-taking as an academic who has herself constructed under-graduate research courses and who has been a student in such courses meant that the researcher was familiar with the culture in which these actions take place. Most of the viewpoints expressed by the interviewees in this study are typical of the positions that the researcher has either taken herself, is familiar with or has debated with other academics and research practitioners. Some viewpoints, however, were not typical of the culture of academia in South Africa and the researcher had to take an initial position (one she was already familiar with), reflect on the views of the respondents and change her views to correspond more closely with the beliefs held by the interviewees. This is endemic to the hermeneutic circle as described by Carspecken (1996) and is supported by the researcher’s reflections in step 3.

- Step 3: Reflecting on and identifying the researcher’s norms

When researchers take the position of interviewees to infer meaning and make interpretations of their speech, they need to reflect on why these specific meanings came to mind. This is a search for the norms that researchers use to analyse the data. If researchers are able to identify these norms they can further question whether there are other meanings that could be offered for what the interviewees said, (besides those based on their own norms), and adjust the interpretation if necessary.

- Step 4: The normative circle

In order to identify the researchers’ norms as described in step 3, researchers need to compare their norms to those of the interviewees. Researchers acknowledge the differences between what they expect the interviewees to say and what they actually say during the interview. These discrepancies in expectation are used to change the initial norms held by the researcher in order to better understand the interviewee’s position. This also refers to the reflexive nature of the hermeneutic process. What Carspecken (1996) perhaps does not emphasise enough in his description of step 4 is that the researcher must remain committed to position-taking, that is, acknowledging the interviewee’s meanings as valid so as not to impose moral judgements on their standpoints. The aim here is to expose the researcher’s norms and adequately understand the research participant’s world (normatively) so that a thorough analysis of meaning can be made.

- Step 5: Personal characteristics of research participants versus typical cultural behaviour

When researchers become involved in collecting data over time through the observation of individuals and becomes familiar with typical behaviour within a specific cultural context, they are able to distinguish between what Carspecken (1996) terms 'culturally routine patterns' and 'individually routine patterns'. The personality of individuals thus comes to the fore as something distinct from typical cultural patterns. As this study was not ethnographic, (i.e. observing interactions of people over time), the researcher cannot make particular statements about the personalities of the interviewees.

These steps do not necessarily take place in a specific order and the researcher may not always be explicitly aware of all the aspects involved in the meaning-making process. Carspecken (1996), however, encourages researchers to use the process described above so that the interpretation remains as close as possible to what the research participants would accept as valid. According to Kelly (1999a), both aspects of the hermeneutic circle, namely, moving from part to whole and whole to part, are essential "to arrive at an interpretation that accounts both *for* contexts and *across* contexts" (p. 413). Although the aim was to look for patterns in the data so as to reconstruct and develop these patterns into categories, it was important to acknowledge any distinct features of a specific context. The researcher thus examined an interview on its own (interpretation that accounts *for* context) as well as looking at patterns that reoccurred in the interviews (interpretation that applies *across* contexts). For contexts shaped by unique characteristics, an FC (for context) code was added, whereas coded responses that were fairly common (discussed by at least two-thirds of interviewees) in the texts were marked as AC (across context).

4.5.5.4 Beyond a description of subjective experience

As Chamberlain (2000) and Willig (1999) have noted, most qualitative research does not move beyond documenting, systematising and presenting people's subjective experiences. To ensure that the triple hermeneutic level described earlier is reached, Willig (1999) proposed several further steps that she placed in the context of a critical realist research project. Some of these steps necessitate the direct involvement of the research participants in the further analysis of their own experiences. However, involving participants at such a level was not possible in this study and thus the researcher became the sole participant in the further steps.

To move beyond the description of subjective experience researchers need to critically reflect on the texts that the participants have produced, namely, the interviews. The aim of this reflection is to uncover how the beliefs identified through the interpretation of the subjective experiences emerged historically and materially, and how they reproduce notions of power in institutions and lead people who construct research courses to take certain actions. The way in which the researcher understands this reflection and the deconstruction of personal theoretical perspectives will be discussed in the next section.

4.5.5.5 My voice as the researcher: some critical self-reflection

Another contribution made by feminists to the practice of research is the notion that reflexivity should play an equal part when researchers write up their research. Taylor (1996) criticised traditional academic social science projects for reinforcing "scientific paradigms of idealised research practice" (p. 108). What

usually gets reported is a sterile notion of the steps that take place when one conducts research without considering the difficulties and consequent adaptations that need to be made as one goes along. Taylor (1996) further warned that "[t]he danger of failing to reflect these research experiences in reports is that important theoretical and political issues get privatised and individualised as personal inadequacies or mistakes" (p. 108). Making the research experience explicit, that is, describing how researchers' personal belief systems shaped the data they approached, collected, analysed, interpreted and reported, can also increase the researchers' trustworthiness (Merrick, 1999). The methodological approach described in this manuscript is in essence an explication of the researcher's political viewpoints pertaining to ontology, epistemology and methodology and needs to be reflected on.

Reflection on the research process as it has taken place in order to show its assumptions, values and biases (termed functional reflexivity by Banister et al., 1994) will form part of the analysis of the text. Using personal reflexivity, the researcher will make known her experiences in terms of how her personal experiences and values played a role in the research process (Banister et al., 1994) and the interpretation of phenomena (Vinden, 1999). Critical theory also demands that researchers engage in self-reflection and thinking about the process of research itself to avoid reproducing taken-for-granted constructs (Alvesson & Sköldberg, 2000). The following statement by Scheurich (1997) is fundamental to this work:

> Although it is simply not possible to exhaustively name all of the conscious and unconscious baggage that the researcher brings to the interpretive moment, a reasonably comprehensive statement of disciplinary training, epistemological orientation, social positionality, institutional imperatives, and funding sources and requirements could be provided so that the reader has some sense of what the researcher brings to the research enterprise (p. 74).

The researcher's identity will be included and not fade away into the project. This is in contrast to the positivist notion of an objective, detached, neutral, emotionless, value-free interviewer ignoring personal characteristics such as gender, race, age, sexuality and institutional training. Merely describing who you are as a researcher does not, however, lead to the level of theorising necessary in research, which Chamberlain (2000) has identified as an important issue for qualitative researchers. The effects of reflexivity on the interpretation of the data should also be included in the analysis as well as how the location of the phenomenon is shaped by social, historical and cultural issues.

So far this section has dealt only with the voice of the researcher, whereas Gergen and Gergen (2000) defined the use of multiple voicing in research projects as being "to remove the single voice of omniscience and to relativize it by including multiple voices within the research project" (p. 1028). This does not only mean that researchers include the voice of respondents in research reports, but that researchers may consciously select people who they think will provide a perspective on the phenomenon that ranges from one end of the continuum to the other. Although the prospect of asking fellow academics to write parts of the interpretation of the results was very inviting, the researcher did not want to depend on the availability and work tempo of others or become caught in the politics of who to include in this process, as there would probably not be time and space to capture all the voices. The researcher

was, however, interested in different opinions and, as described in section 4.5.3.1, the sample was chosen so as to include each type of course with the assumption that the content of the course is related to the way in which the course leader constructs the content of under-graduate research methodology curricula. By following the second type of multiple voicing, the researcher concedes that she remains the primary author of the interpretation "and thus serves as the ultimate arbiter of inclusion, emphasis, and integration" (Gergen & Gergen, 2000, p. 1029). This is also done to avoid descending into relativistic nihilism when all accounts of a phenomenon are perceived to be equal and researchers are prevented from making sense of the data (Banister et al., 1994). The researcher will, however, be open to comments from the research participants and other parties, but for practical reasons this opportunity will only be presented when the research has almost been completed.

Notwithstanding the recognition of the importance that the role that the researcher's perspective plays in the research process, the researcher will not fall into the trap that many qualitative researchers do: over-indulging in navel-gazing while forfeiting the quality of their research. The way in which this will be achieved is consequently discussed.

4.6 The reliability and validity of the research

This section is named 'reliability and validity of the research', but it is less about these issues than an exposition of the way in which different worldviews define these concepts. Besides the earlier discussion of the three paths of accountability, the space in which this research is positioned vis-à-vis reliability and validity will be described. It is important for the reader to understand where this position comes from. As Chamberlain (2000) noted, the nature of the history of validity (from being linked initially to psychological testing to expanding to all other levels of research) means that "[w]e will continue to require some form of 'validation' to warrant and legitimate our research and retain our acceptance as 'researchers' (even if not as 'scientists')" (p. 291). By saying this he substantiates the importance of defining some criteria for validity and reliability although the discussion in this section will show that not all researchers would agree with this argument.

Denzin and Lincoln (2000) described four major views on reliability and validity: the positivist, post-positivist, post-modernist and post-structuralist positions. The first position, positivism, applies one set of criteria to all scientific research. The terms used by this paradigm are reliability, validity and objectivity. Positivist researchers determine whether the research results are consistent across situations (reliability), measure what they should be measuring (validity), and do not consider themselves to be contaminated by any sources of bias in the research process (objectivity).

Post-positivists assert that criteria of validity and reliability are unique for qualitative research and should be developed as such. Although researchers who locate themselves in this position believe that these criteria should be different to those of quantitative research, the criteria parallel those of quantitative

research. For example, internal validity is translated to credibility, external validity to transferability, reliability to dependability, and objectivity to confirmability (Guba, 1981).

Post-modernists firmly reject any notion of stable criteria whereby qualitative research can be judged. Rather, as Scheurich (1997) suggested they encourage a multiplicity of dialogue about what constitutes valid research. This dialogue can originate especially from marginalised voices who are in the right position to voice the diversity of humankind in "a loud clamour of a polyphonic, open, tumultuous, subversive conversation on validity as the wild, uncontrollable play of difference" (Scheurich, 1997, p. 90). What constitutes valid and reliable knowledge and who decides on these principles is questioned. Post-modernists would therefore argue that all knowledge claims have equal validity.

The final position to be discussed, post-structuralism, advocates that each research project should have its own set of criteria that is devoid of positivist and post-positivist assumptions. The project itself would inform what could be accepted as valid and reliable research. The antithesis to positivist and post-positivist notions of reliability and validity could be factors such as subjectivity, emotionality and feeling (Denzin & Lincoln, 2000).

In section 4.5.5.5 the importance of the voice of the researcher in the research was highlighted. The term 'trustworthiness' was used regarding the effect of the researcher's personal paradigm on the research. Earlier in this chapter the use of an audit trail was also mentioned. These two concepts signify the ways in which this research will be juxtaposed against traditional notions of validity and reliability. Personal reflexivity will show how the researcher's bias was included in the research, which will enable the reader to see how this informed the process. As Denzin and Lincoln (2000) stated, the perspective that researchers bring from their historical background or 'interpretive community' "leads the researcher to adopt particular views of the 'other' who is studied" (p. 18). Functional reflexivity can provide an alternative to the 'sterility' of the research process. Cybernetic theory supports the post-modern view that there are different ways of approaching a phenomenon: "[the researcher] recalls that he, as an observer, has drawn distinctions and that there are other ways of discerning data and patterns of organisation" (Keeney, 1983, p. 28). In this paradigm, validity and reliability is substituted with ethics, in other words, by describing how the researcher has approached the research problem, the reader should be convinced that this approach authorises[13] the researcher to speak about the topic (Hine, 2000).

The idea that stable criteria can be used for judging any type of research is thus rejected and the post-structuralist viewpoint that the research project itself informs the criteria is accepted. Reader are, however, not prevented from judging the research as the post-modernists and Feyerabend would have it, but they are allowed to make their own decision about whether the researcher has justified her position, keeping in mind that there are multiple ways of knowing. Based on Chamberlain's (2000) arguments about validity, the researcher does not want to discourage the reader from judging whether or not 'good' methods were employed. More importantly, however, the researcher should be judged on whether or not she has made a 'good' interpretation of the phenomenon. The researcher would like to change the way

[13] The researcher uses the word 'authorises' not to mean that she is claiming a privileged or authoritative position (Kincheloe & McLaren, 2000), but to mean that she is making her assumptions explicit to be judged by others.

that academics understand and construct under-graduate research methodology courses (termed catalytic validity by Stiles, 1993). In saying this the researcher is not stating that there is something inherently wrong with the present courses; rather she would like to raise people's awareness and encourage careful consideration regarding what lecturers include in their courses. Researchers should pay attention to the ideological assumptions behind the curriculum and what the implications of their ontologies and epistemologies are.

One method of gaining validity for the researchers' initial interpretation (thematic analysis) is to allow dialogue about the viewpoints to ascertain whether participants agree with the statements that have been made (Carspecken, 1996). This underscores Habermas's idea of communicative rationality where people are able to exchange ideas and allow the best argument to prevail. Richardson (1996) refers to this action as member checks where, at any stage of the analysis, the researcher engages with the participants about the process and includes the participants' views of the researcher's interpretation in the final analysis. In this study the researcher sent, via e-mail, the themes that emerged from the interviews to the participants and asked them for comments. This is a limited adaptation of member validation as the researcher did not engage in sustained dialogues with respondents, but it adheres to Gadamer's (1989a) version of hermeneutics of alternating between an unfamiliar scheme and that of our own world. As discussed earlier this leads to the revision of our ideas and the eventual fusion of horizons. Although the researcher made her own interpretation of the interview data she was open to improving her reading of the phenomenon.

4.7 Conclusion

In this chapter the research process that was undertaken in this study was described. Critical theory's approach to research was explicated to provide a theoretical context for the methodological design. It was argued that critical theory's assumptions about the research process allow for methodological as well as theoretical pluralism. The researcher therefore felt comfortable implementing both quantitative and qualitative methods for data collection and analysis. A minimal version of critical theory was advocated to ensure that the researcher did not reproduce existing dominant patterns of thought. An audit trail for both the quantitative and qualitative approaches was provided to give the reader a clear picture of the specific route that the researcher followed to enable responsible and ethical collection, analysis, interpretation and reporting of the data.

In part one of the chapter a description was provided of the method used to collect and analyse the initial data for this study. It was stated that information was collected in an exploratory fashion in order to expose the content of research methodology courses at South African universities. The four phases that constituted the data collection and the three levels of complexity within the analysis process were described. Within these levels, Huberman and Miles' (1994) interactive model for data analysis was discussed. This model contains three linked sub-processes: data reduction (preceded by data collection), data display, and drawing of and verifying conclusions. In the first part of this chapter the

findings of the two initial levels of analysis are presented and discussed. On a first level of analysis, the data was reduced to manageable units (constituting the sub-process of data reduction). On level two, conditional matrices based on the work of Strauss and Corbin (1994) are used to display the data (constituting the sub-process of data display). The third and final level of analysis entails conclusions being drawn and verified from the data. This discussion is presented in the chapter that follows and also forms part of the final deliberations of the study. Chapter 5 contains a description of the sample of departments that were contacted or found on the NRF website. These departments consequently formed the population from which the sample was drawn for the second part of the study, namely speaking to the people who construct the curricula.

The second part of the chapter presents the procedure used by the researcher to conduct interviews with academics that are responsible for developing and teaching under-graduate research methodology courses in social science disciplines. Four categories of research courses were identified and used as a basis for selecting the sample. Features such as type of institution (historically black or white), geographical location, training model (distance or residential), discipline and ability to provide the researcher with information further informed the sampling process. A case was made for using both face-to-face and e-mail interviews to collect data. Analysis of the data was framed within a critical theory approach, namely, critical hermeneutics that lies on a critical-political level and is referred to as triple hermeneutics. The reliability and validity of the data hinges on the researcher's trustworthiness, but the methodology that was used to gain the information is presented for judgement by the audit trail that is described in this chapter. Member checks were conducted to aid in fusing horizons. The chapter that follows contains the presentation and interpretation of the data that were gathered. Descriptions are provided of both the content of under-graduate research courses and the beliefs held by lecturers who constructed some of the courses.

CHAPTER 5: RESULTS

5.1 Introduction

The preceding chapter presented the methodology used to collect data about the content of under-graduate research methodology courses and the beliefs held by the lecturers who construct them. Part one of this chapter contains the data collected from universities in South Africa on the content of prescribed under-graduate research methodology textbooks as well as the coursework. Together, this information describes the curricula examined in this study. This is followed by a presentation of data from interviews with research methodology teachers about the way that they constructed their research methodology course.

In this chapter the researcher describes the interviewees according to the characteristics that are most important to the aims of the study. A thematic analysis with a coding structure was applied to the data. This thematic analysis is grounded in the hermeneutic circle of interpretation, which enabled the researcher not only to give the research participants a voice and understand their world, but also to make meaning from what they said. Nine beliefs held by the participants about under-graduate research courses were identified. The findings emanating from the analysis of the interview texts are presented below.

This chapter follows the structure of the previous one where the two parts of the study are presented separately. The integration of these parts will be attempted in the chapter that follows.

5.2 Part 1: An exposition of the content of under-graduate research methodology courses in South Africa

In this section of chapter 5 the findings of part one of the study are presented in the following order: a description of the departments and universities included in this section is given, together with a brief discussion of relevant issues pertaining to the sample. This is followed by a discussion of the results on level 1, a discussion of the results of level 2 and a conclusion with suggested points of further enquiry for the study.

5.2.1 Description of the sample

As reported in part 2 of the previous chapter, 82 departments or faculties were included in the study across 24 universities. The inclusion of only universities and not other tertiary learning institutions is to limit the scope of the study; in future research technikons could also be included. A description of the participating universities and faculties/departments is given below in table 5.

Table 5 Description of sample in terms of university, faculty and department

University	*Faculty*	*Department*
Vista University (Port Elizabeth campus)	Arts	Psychology
Vista University (Welkom campus)	Arts	Psychology
Vista University (Sebokeng)	Arts	Psychology
Vista University (Pretoria)	Arts	Psychology
University of the Witwatersrand	Arts	Social Work Philosophy Social Anthropology Sociology Psychology
	Commerce	Economics
University of the Free State	Social Sciences	Psychology Sociology
	Economic Sciences	Industrial Psychology
University of Natal (Pietermaritzburg)	Social Sciences	Sociology Psychology
	Economic Sciences	Economics
University of Natal (Durban)	Social Sciences	Sociology Social Work Psychology
University of Cape Town	Social Sciences	Sociology Environmental & Geographical Sciences
University of Durban Westville*	Social Sciences	Anthropology Psychology School of Life & Environmental Sciences
University of Fort Hare*	Social Sciences	Sociology Communication
University of Pretoria	Arts	Anthropology & Archaeology Communication Pathology Information Science Philosophy School for Social Sciences Social Work Sociology
Potchefstroom University	Medicine	Nursing
	Arts	Philosophy Psychology Social Work School for Communication & Information Studies

…/continued

Rand Afrikaans University	Arts	Communication Science Human Resource Management Psychology
	Economics	Economics
University of Port Elizabeth	Arts	Anthropology Philosophy Psychology Social Work
University of the North*	Arts	Psychology Sociology Social work
	Science	Geography Nursing
	Education	Psychology of Education
Rhodes University (East London)	(Faculty not indicated)	Sociology and Industrial Sociology Psychology Social Work
Rhodes University (Grahamstown)	(Faculty not indicated)	Anthropology Sociology & Industrial Sociology
UNISA	(Faculty not indicated)	Anthropology & Archaeology Public Administration Education Industrial Psychology Psychology Nursing Social Work
University of Transkei*	(Faculty not indicated)	Anthropology Information Science Philosophy Political Science Sociology
University of Stellenbosch	(Faculty not indicated)	Economics Sociology Political Science
University of Zululand*	(Faculty not indicated)	Educational Psychology Geography Home Economics Industrial Psychology Philosophy Political Science Psychology Social Work

… / continued

University of the Western Cape*		Geography Political Science Psychology
University of Venda*		Psychology Sociology

* HDU

5.2.2 Presentation of results: level 1

The results of the first step in the data analysis process (data reduction preceded by data collection) are presented in tables 6 and 7 below. In table 6 the topics are listed with the corresponding frequency, as explained in the previous chapter, counted across all the departments involved in the study. The reader will notice that, in addition to the topics generated on the content and skills taught in under-graduate research methodology courses, the tables provide the categories in which the researcher placed the topics. These categories will be discussed in level 2. The reason for presenting the categories at this stage is for the reader to see which topics formed part of each category. The reader should note that the categories are not mutually exclusive, in other words, the individual topics do not necessarily fit into only one category (Neuman, 2000). For example, in table 7 the skills listed under the category of data collection could be placed in other categories if it was known what specific method of data collection is being used. The fact that specific reference was not made to the method for all cases hampered the researcher's task in categorising these topics. The data generated in this section, that is, the information contained in tables 6 and 7 will be discussed in the chapter that follows.

Due to the large amount of information presented in the tables, only certain points will be highlighted and discussed below. When continuing to the second phase of the data collection for this study, the aspects that have been punctuated as being important will be used to inform further the questions asked.

Table 6 Topics in research methodology texts (in categories) and frequency of appearance in course content

Topics and categories	***Frequency***
Philosophy of science	**13**
The relationship between theory and research / philosophical aspects of research: reality and mind / science and research / the nature of social and human inquiry / paradigms of research / interplay of theory and method	8
The generation of knowledge	1
The domain of methodology	0
Meta theory	4
Background to the research process, beginning research	**292**
Dimensions of research	0
Inductive and deductive reasoning	3
Types of research	2
Descriptive	6
Explanatory	3

Exploratory	0
Evaluatory	2
Intervention	3
Goals and objectives of professional research	0
Basic and applied research	2
The research process	68
Conceptualisation and operationalisation	63
Selecting a research topic	2
Identifying a problem	3
Problem solving method/cycle	1
Formulating a hypothesis	2
Literature overview	60
Research designs	0
Individual or group	59
Time series	1
Longitudinal research	0
Cross sectional research	0
Panel studies	9
Pilot studies	0
The research proposal	1
Project management	0
Quantitative and qualitative research (differences)	2
Data collection and recording	**64**
Data collection methods	61
Data preparation	1
Coding	1
Cleaning	0
Punching	0
Transferring	1
Database management	0
Analysis of data	0
Quantitative research & methods	**98**
Nomothetic research studies	3
Ex-post facto research	1
Epidemiological research techniques	1
Retrospective studies	1
Prospective studies	1
Comparative research	1
Equivalent control groups	1
Survey research	46
Census data	1
Questionnaires	0
Experimental research	15
Quasi-experimental	1
Control	0
Simulation and games	3
Laboratory research	23
Self-administered/self report	0

Types of observation research	**84**
Field research	27
Participatory observation	21
Structured observation	2
Passive observation	33
Naturalistic research	1
Interviewing	**15**
Interviews	14
Face to face interviews	1
Telephonic interviews	0
Participatory research	**8**
Action / participatory research	8
Non-reactive research, secondary analysis	**4**
Historical comparative research / archival / secondary analysis	3
Utilising existing statistics	1
Measurement	**11**
Measurement	3
Levels of measurement	2
Reliability, validity and bias in measurement	1
Validation	0
Measurement scales / scales and indexes	0
Psychometric tests / educational testing and measurement	0
Construction of tests / instrument design	3
Evaluation of tests: standardisation, reliability and validity	2
Item analysis	0
Quantitative data analysis	**107**
Quantitative analysis	55
Parametric and non-parametric statistics	0
Non-parametric methods	2
Basic statistics: concepts	14
Statistical methods	0
Normal distribution and standard scores	1
Measures of central tendency	0
Hypothesis testing	1
Frequency distributions	0
Significance testing	0
T-test	2
Differential research	1
Analysis of variance	3
Correlation	0
Simple regression	7
Multiple regression	2
Linear and matrix regression approaches	3
Measures of variability	0
Probability	4
Causality	2
Power	1
Single and simultaneous equation models	1

Bivariate	2
Univariate	0
Factor analysis	4
Repeated measurements	1
Autocorrelation and heteroscedacity	0
Chi-square	0
Econometric techniques	1
Sampling	**15**
Sampling	3
Types of sampling	10
Sampling error	2
Qualitative research & methods	**17**
Ethnography	1
Ethnomethodology	5
Grounded theory	0
Delphi method	1
Phenomenology	1
Non-experimental research	3
Focus group interviews	0
Case study	2
Life history collection	0
Single system design	1
Documentary research	0
Film, video and photography	3
Qualitative data analysis	**25**
Qualitative analysis	3
Content analysis	13
Secondary analysis	6
Text analysis	2
Conversational analysis	0
Narrative discourse analysis	0
Semiological	1
Interpretation of data and generalisation of results	**62**
Interpretation of data	4
Generalisation of research findings	58
Writing skills, reporting skills, publishing	**74**
Dissemination of research results	4
Report writing	1
Report to the community	33
Publication	36
Data presentation	**4**
Graphical presentations / graphical representation of space / tabular presentations	4
Reflexivity	**1**
The role of the researcher	1
Intervention research, policy formulation	**16**
Policy making and research	0
Scenario / situational analysis	12
Impact studies	1

Needs assessment	0
Development studies	1
Developmental research and utilisation model (DR&U)	2
Social accounting	0
Ethics	**6**
Ethics of research	2
Ethics and sponsors	2
Ethics and research subjects	0
Ethics and dissemination of research findings	0
Uses and abuses of research	2
Computer literacy	**0**
Aids to research	0
Computers and social research	0
Programme evaluation	**1**
Programme evaluation	1
Interpreting existing literature	**6**
Reading and understanding meaning	6
Triangulation	**9**
Triangulation	5
Combining quantitative and qualitative research	4

As presented in table 6, the research process is fundamental to most research methodology courses. De Vos (1998) equated the research process to 'methodology', which "merely means the way in which we proceed to solve problems …" (p. 37). Providing students with a 'map' of the way that research proceeds is included in many texts aimed at under-graduates (see Babbie & Mouton, 2001; De Vos, 1998; De Vos, Strydom, Fouché & Delport, 2002; Terre Blanche & Durrheim, 1999a; Neuman, 2000; Welman & Kruger, 1999). Some of these texts present the research process as an architectural blueprint whereas others explain the non-linear, interdependent nature of research (see chapter 2).

Other topics that received high frequencies (i.e., taught in more than half the courses surveyed) that were intuitive to the researcher's framework of the content presented in under-graduate courses included: individual or group designs, survey research, quantitative methods, literature review, conceptualisation and operationalisation, quantitative analysis, and generalisation of research findings. Some topics received fewer frequencies than expected, for example, sampling, topics related to philosophy of science, types of research, identifying a research problem, formulating a hypothesis and themes related to ethics. These findings could also be a result of the NRF's database structure that provides general information which is not divided into more specific topics.

The reader will have noticed that there are some topics that have no recorded frequencies. This is in itself a significant result. When discussing the unit of mind, Bateson (1972) explained that what is transferred onto a person's map from the territory is 'difference'. Information is a 'difference that makes a difference'. This occurs in a process where people select certain facts about the territory that are placed on their map, in other words, this becomes information. The importance of the zero findings is succinctly captured by Bateson (1972) when he said "[b]ut remember that zero is different from one, and because

zero is different from one, zero can be a cause in the psychological world …" (p. 452). This is different to the world of natural sciences where cause and effect exist and are 'real' and can be observed. 'Things' that do not exist, however, can have significance in the psychological world. What is *not* being taught in research methodology courses thus has meaning in the context of what *is* being taught. By way of illustration: the theme of computers and social research is not listed in the content of research methodology courses (although it receives a low frequency in 'skills taught' in table 7). This finding is discussed in the section on skills training.

Table 7 contains the skills that are acquired in under-graduate research methodology courses and the number of courses they are taught in. Some of the patterns that captured the attention of the researcher will be discussed below.

Table 7 Skills acquired in research methodology courses and frequency of appearance in course content

Skill acquired	***Frequency***
Philosophy of science	**13**
Issues within the philosophy of social science and social theory	9
Applied logic / critical reasoning / thought experiments from different presuppositions / conceptual analysis	4
Background to the research process, beginning research	**50**
Statement of problems / sources of research problems	3
Formulating a research question	1
Conceptualisation/theory building	2
Hypotheses	4
Variables	2
Project management / planning	3
Literature review/study	7
Research procedures	1
Research design	5
Types of research	2
Basic vs applied research	1
Laboratory vs field research	1
Exploratory	3
Explanatory	2
Descriptive	4
Longitudinal	1
Cross-sectional	2
Comparative research	1
Qualitative and quantitative approaches	5
Data collection and recording	**12**
Data gathering/collection / fieldwork	11
Data recording	1
Quantitative research & methods	**114**
Quantitative research / statistical research methods / nomothetic research studies	6
Prospective studies	1
Retrospective studies	1

Epidemiological research techniques	1
Experimental research	18
Pre-experimental research	2
Quasi-experimental methods	3
Equivalent control groups	1
Ex-post facto research	1
Correlation research	5
Survey research / census research	68
Questionnaire construction	6
Check-lists	1
Sampling	**6**
Sampling	4
Simple random sampling	1
Population sampling and means	1
Quantitative data analysis	**30**
Quantitative data analysis	6
Mathematical methods / statistical methods and techniques	7
T-test	1
Chi-square	2
Correlation	1
Regression	1
Normal distribution	1
Probability	1
Analysis of variance	1
Descriptive techniques / frequency analysis / summarising data / quantitative content analysis	4
Differential research	1
Application of forecasting techniques / econometric techniques / econometric model-building	3
Non-parametric methods	1
Measurement	**17**
Measurement	2
Instrument design / test construction	5
Testing and measurement	1
Measurement scales	2
Application of psychometric instrument	1
Item analysis	3
Validation	3
Qualitative research & methods	**52**
Qualitative research	11
Non-experimental research designs	1
Focus groups	7
Ethnography / ethnomethodology / historiography	8
Grounded theory	1
Narrative method	1
Life history collection	1
Case studies / single cases / single system design	17
Phenomenology	5
Types of observation research	**59**
Observation	12

Naturalistic	3
Systematic	3
Participant observation / field research	40
Passive observation	1
Participatory research	**17**
Participatory action research	14
Participatory methods	3
Programme evaluation	**18**
Programme evaluation / evaluation research	17
Evaluatory research	1
Interviewing	**25**
Interviewing	13
Interviewing schedule	2
In-depth interviews	6
Structured interviews	1
Semi-structured interviews	2
Open-ended / unstructured interviews	1
Qualitative data analysis	**21**
Qualitative data analysis	8
Text analysis / documents	3
Semiological	1
Content analysis	8
Discourse analysis	1
Non-reactive research, secondary analysis	**7**
Unobstrusive research	1
Secondary analysis / sources (government statistics, historical archives) / historical research	6
Interpretation of data	**3**
Data interpretation / evaluation of obtained results	3
Data presentation	**5**
Graphic data representation / graphical representation of space / graphical summary of statistical information / tabular analysis	5
Intervention research, policy formulation	**15**
Developmental methods / research	3
Scenario / situational analysis	2
Needs assessment	2
Intervention research	4
Developmental research and utilisation model (DR&U)	1
Impact studies	1
Development of services	1
Policy formulation	1
Ethics	**2**
Ethical considerations in research	2
Interpreting existing literature	**2**
Interpreting published documents	1
Reading and understanding meaning	1
Writing skills, reporting skills, publishing	**16**
Essay writing / structured writing	2
Report writing	10

Report-back to researched	2
Publication	2
Computer literacy	**2**
Computer skills (Internet)	2

As evidenced in table 7 the skill with the highest frequency (68) is survey and census research. Neuman (2000) captured the perceived importance of survey research in describing social phenomena, which may give a clue as to why it is practised as a skill in so many courses:

> The survey is the most widely used data-gathering technique in sociology, and it is used in many other fields, as well. In fact, surveys are almost too popular. People sometimes say, "Do a survey" to get information about the social world, when they should be asking, "What is the most appropriate research design?" (p. 247).

Conducting a good survey requires much thought and effort to avoid misleading or worthless results (Neuman, 2000), which may be why lecturers deem this an important skill for under-graduate students to practise. In some cases, probably as a result of their own research training, lecturers place much emphasis on using a survey design with its accompanying questionnaire to conduct research as the only way of submitting a successful under-graduate dissertation (Lowe, 1992). Students are thus encouraged by their lecturers and the content of textbooks to implement surveys in academic and practitioner spheres although some authors of under-graduate texts, such as Neuman who is quoted above, attempt to guard against this. Interestingly, the skill associated with constructing a questionnaire *per se* is only taught in six courses. This low frequency may be due to a lecturer subsuming questionnaire construction under the general heading of survey and census research in the Nexus database.

Lowe (1992) made the following statement about the emphasis placed on questionnaires in under-graduate dissertations in the discipline of geography:

> … as a result of the context in which they were taught geography and the specifics of their own research training a number of lecturers still highlight the questionnaire as the central feature of an under-graduate dissertation … Indeed, a dissertation is not a dissertation (let's face it) without a (formally structured and statistically significant) questionnaire survey … (p. 173).

Successful research, in this instance, is equated with a formal, structured, quantitative method. It seems that the message that is conveyed to students is '*if* you use a questionnaire, *then* your research will be successful' (a linear cause-effect statement) whereas the role of qualitative methods in producing a good dissertation is downplayed.

Second to the popularity of survey and census research, participant observation / field research is taught in forty courses. One reason for this may be that

> [m]any students are excited by field research because it involves hanging out with some exotic group of people. There are no cold mathematics or complicated statistics, no abstract deductive hypotheses. Instead, there is direct, face-to-face social interaction with "real people" in a natural setting (Neuman, 2000, p. 345).

By acquiring skills in field research, students can 'get their hands dirty' in the research process and are able to learn through experience. The above description of some quantitative methods as 'cold', 'complicated' and 'abstract' is seen in contrast to or as 'different from' qualitative methods.

Interviewing is another skill that is taught to under-graduate students. Taylor (1996) expressed her concern, however, that interviewing is still being taught to students in the following way:

> Many social science textbooks still include chapters that encourage the researcher to go to the interview situation with the impression that it is possible to become a neutral person for the duration of the interview. They imply that personal emotion and subjectivity can be put in a neat box before turning on the tape recorder. This dehumanising process is supposed to allow the research to generate unbiased, objective data that can be analysed by totally disregarding the presence of the interviewer (p. 107).

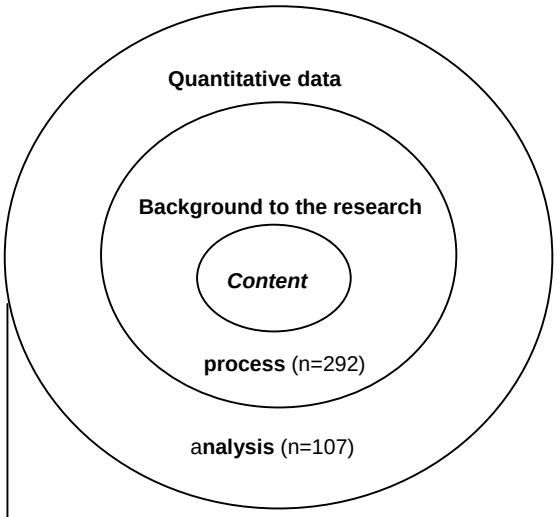
It is Taylor's contention that denying the researchers' identity and not acknowledging the role of their experience of the research process is a legacy from the positivist paradigm.

Even though a recent article (Yenza!, 2000) announced that the Internet is essential for the future of the way in which we conduct research and disseminate findings, and that computer and Internet literacy are fundamental skills for researchers in the social sciences and humanities, surprisingly little attention is given to this skill in the courses that were surveyed. Some universities expect students to acquire computer skills elsewhere, or as in the case of the University of Pretoria, basic computer courses are built into certain packages in the social sciences. In this way students acquire the necessary skills outside of the social sciences and their specific fields of application. Large under-graduate student numbers and a lack of computer facilities to accommodate these numbers may also contribute to departments reserving the acquisition of computer skills for post-graduate students involved in courses that require high computer literacy. That social scientists have only begun using the Internet to do research recently may also be a factor in the scarcity of its inclusion in curricula. Some recently published social science research texts (see Neuman, 2000; Terre Blanche & Durrheim, 1999a) include a small section on Internet searches related to performing a literature review. This may contribute towards the inclusion of this topic in future research methodology courses.

5.2.3 Presentation of results: level 2

As described in chapter 4, the results from level 1 of the data analysis were processed using the categories that were generated from the topics and displayed in conditional matrices. Due to limited

space the first two conditional features are illustrated in the circle format whereas subsequent features are listed on lines. This visual display of the data aids the researcher to conceptualise the different aspects pertaining to under-graduate research methodology courses.



Quantitative research & methods (n=98)
Types of observation research (n=84)
Writing skills, report-writing, publishing (n=74)
Data collection and recording (n=64)
Interpretation of data, generalisation of results (n=62)
Qualitative data analysis (n=25)
Qualitative research and methods (n=17)
Intervention research, policy formulation (n=16)
Sampling (n=15) / **Interviewing** (n=15)
Philosophy of science (n=13)
Measurement (n=11)
Triangulation (n=9)
Participatory research (n=8)
Ethics (n=6) / **Interpreting existing literature** (n=6)
Data presentation (n=4) / **Non-reactive research, secondary analysis** (n=4)
Programme evaluation (n=1) / **Reflexivity** (n=1)

Figure 12 Conditional matrix of the categories of content of research methodology courses

After learning about the fundamental aspects of research, which would by default be included in most (if not all) research methodology courses, students are exposed to quantitative research (107 aspects of quantitative data analysis and 98 aspects of quantitative research methods respectively). Qualitative research methods and qualitative data analysis are included far less in the curricula according to the NRF's database. This finding could be further investigated with regard to post-graduate courses,

especially in the light of Rogers' (1986) assertion that no APA approved 'humanistically oriented'[1] doctoral programmes in psychology[2] existed at that time, a sentiment which Polkinghorne (1992) still supported six years later. Although alternate research methods were developed within a broad humanistic methodology, academic psychology has not changed its position on its general methodological commitment. Polkinghorne (1992) stated that American academic psychology

> … continues, however, to adhere in the main to the use of research procedures that were adopted by the discipline during its logical positivist and behaviorist period. Psychology has been the most resistant of the disciplines that study humans to expand its methodological procedures. It has yet to adequately come to grips with the methodological implications of the changes in the philosophy of science that have taken place in the last half of the twentieth century (p. 226).

Lowe (1992) echoed this statement when she stated that qualitative methods are "… viewed – and hence taught – as afterthoughts to the more serious work of questionnaire design and tend, therefore, to disappear off a student's list of priorities" (p. 172). Despite some attempts at integrating aspects of quantitative and qualitative research, these two approaches are still dichotomised conceptually with quantitative approaches receiving the strongest support. The implication of this state of affairs, according to Kvale (1996), is that "[t]oday's social science students acquire a professional competency in analysing the social world as a mathematically constituted universe, but remain amateurs in the face of a linguistically constituted world" (p. 69). Ashworth (1995) also noted the lack of texts that adequately deal with the analysis and theory of qualitative research; if such material exists it is difficult to access and is not aimed at under-graduate audiences. This leaves the qualitative methods curriculum in psychology with little to work with.

According to figure 12, philosophy of science seems to be generally neglected in research methodology courses. Chamberlain (2000) and Scheurich (1997) have criticised the authors of research methodology texts for not including enough content on the philosophy of science. In a study on the methodology texts used in psychology courses in the USA, Proctor and Capaldi (2001) found that not only is philosophy of science rarely included in a text, but when it does occur an outdated version of a theory is presented. They cite the example of discussions in certain texts about Popper's falsification principle without mention of the criticism, rejection and modifications that his theory has been subjected to. Philosophy of science may be included as content in more courses than stated in the database as some of the themes incorporated in this category have also been placed under 'skills acquired in research courses' (see table 7). The lack of representation of philosophy in under-graduate courses is not unique to this study, as Lowe (1992) stated:

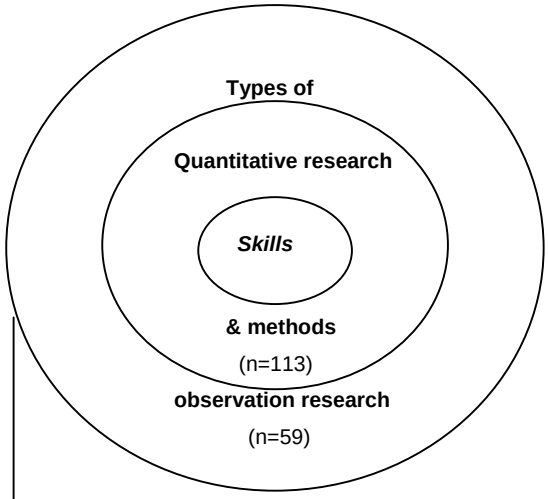
[1] Polkinghorne's (1992) definition of 'humanistically oriented' is used, which he said refers "to the position that human existence includes unique characteristics, such as self-reflection, purposefulness, language, and culture" (p. 218).

[2] This refers to doctoral programmes that result in dissertations based on a humanistic methodology.

> … under-graduates in general rarely get a good grounding in philosophy and its relationship to alternative methodologies. Even when they do, it is surprising how many students fail to connect this 'theory' to the method which they use later in their own dissertations and practical work (p. 173).

Hoshmand (1989) discussed alternate research paradigms at length. One of the conclusions she came to is that "[t]he inclusion of context and the richness of description offered by these paradigms can be helpful to researchers in developing an overall sense of a project and deciding on appropriate directions of inquiry throughout the process" (p. 37). This finding can guide the researcher in formulating some questions pertaining to the paradigms students are exposed to in particular and how these paradigms are related to research practice. One of the areas of interest in this study will be to explore whether the criticism of traditional views of research and the subsequent development of alternative paradigms (see chapter 2) has been applied in social science research methodology curricula in South African tertiary education. If any inclusion of this issue has taken place, the 'why' and 'how' of the inclusion of alternate designs needs to be investigated (Polkinghorne, 1983).

'Skills taught in courses' is also displayed in a conditional matrix in figure 13.



Qualitative research & methods (n=52)
Background to the research process (n=50)
Quantitative data analysis (n=30)
Interviewing (n=25)
Qualitative data analysis (n=21)
Programme evaluation (n=18)
Participatory research (n=17) / **Measurement** (n=17)
Writing skills (n=16)
Intervention research, policy formulation (n=15)
Philosophy of science (n=13)
Data collection & recording (n=12)
Non-reactive research, secondary analysis (n=7)
Sampling (n=6)
Data presentation (n=5)
Interpretation of data (n=3)
Ethics (n=2) **/ Interpreting existing literature** (n=2) **/ Computer literacy** (n=2)

Figure 13 Conditional matrix of the categories of skills taught in research methodology courses

From the figure above it is self-evident that training in quantitative research skills is most prevalent in under-graduate research methodology courses. Observation research is placed next in the matrix, being taught in just more than half the courses when compared to quantitative research skills. Participant observation / field research is a large contributor to this category (see table 7). Terre Blanche and Kelly (1999) used phrases such as “takes place while things are actually happening”, “gets you even closer to the action” and “you as the researcher become fully involved in the setting being studied” (p. 134) when describing participant observation. Four possible issues could be linked to the popularity of observation research in under-graduate research methodology courses:

- Firstly, lecturers can be questioned about whether the inherent experiential nature of participant observation could possibly be linked to the advocacy of experiential learning in current educational paradigms.

- Secondly, the growing call for the inclusion of alternate methods of research design (see chapter 2) could be an explanation for the popularity of observation research in the courses.
- Thirdly, the nature of participatory methods (emphasising inclusion, collaboration, empowerment) may lend itself to contributing towards the changing political scenario in South Africa, an assumption supported by Letseka (1997).
- Linked to the third issue is the corollary that academics and researchers who have been excluded from training in quantitative methods associated with the white male elite may have found comfort in alternate approaches as described by Bozalek and Sunde (1993/4) in chapter 3.

The above discussion implies that there is an emerging group of researchers who are using participatory methods to align the knowledge base of research methodology with new paradigms within this discipline as well as shifts in thinking about the 'what' and 'how' of the educational context. Being allowed to think critically about these issues, in what Letseka (1997) termed an 'educationally problematic context', may empower both the researcher and the researched.

Skills-training in qualitative research is not much further away in the matrix, but still occurs in fewer than half the number of courses that include quantitative methods. This observation echoes similar findings in the UK, for example. Richardson (1996) reported that post-graduate students engaged in psychological research found that their supervisors were not experienced enough to train them in the use of qualitative methods and some supervisors did not seem to appreciate the role of qualitative methods in psychological research. The students also reported that the use of qualitative methods was not sufficiently covered in their under-graduate courses. A culture of discouraging post-graduate work that makes use of qualitative methods seems to prevail (Richardson, 1996). A lecturer who teaches qualitative geography to under-graduate students admitted that "qualitative methods have presented me with some of the most difficult and seemingly insurmountable problems of my teaching career to date" (Lowe, 1992, p. 171). It seems that students are indoctrinated with statistical techniques that emphasise rigour and statistical significance before they are introduced to qualitative methods that then seem 'inadequate' and 'unscientific' in comparison.

As expected, many courses give attention to skills acquisition in various aspects of the beginning or introductory phase of research. These include statement of a research problem, hypothesis formulation, research designs, literature review and so on (see table 7). Writing skills are taught in 16 courses (this may be related to producing a literature review), although using writing skills to compile a report (included in 10 of these courses) seems more likely.

Intervention research (this also includes developmental research) and participatory research methods are taught in almost an equal number of courses. The former category is mostly included in research courses presented by social work departments, and even though these departments only comprise 11% of the total number of departments that were surveyed, these methods are well represented. What is taught in specific courses is, however, not evident from the data collected up to this point. The popular use of traditional developmental research methods, especially in developing countries has prompted Kondrat

and Juliá (1998) to list many authors who have called for the use of these methods to be supplemented by more participatory approaches and "particularly approaches that involve active participation in the research process by people whose lives will be affected by the findings" (p. 2). Teaching participatory methods seems to be more prevalent in non-social work courses; this could be a trend that the discipline of social work should investigate particularly in the light of South Africa being a developing country. It may be, however, that a course on intervention teaches students that the community should become co-researchers in the process rather than objects of study, a point already made in the 1970s by James G. Kelly, a major contributor to community psychology in the US (Altman, 1986).

Kondrat and Juliá (1998) further demonstrated how implementing participatory action research could enhance people's choice and general well-being. Even though participatory action research is usually associated with changing the balance of power between the researcher and the researched, it can also be used in more ordinary situations such as empowering a community to make changes in the lives of its members, something that was not perceived as being in their capacity before. A participatory approach is well-suited to empowering marginalised and disempowered people (Bhana, 1999). Teaching students to partake in this process is especially relevant in South Africa where groups of people have been oppressed and disempowered on the basis of one or a combination of factors such as race, gender, physical disability and sexual orientation. Using participatory methods, communities can co-research their own needs and find a solution for how these problems can be addressed. Terre Blanche and Durrheim (1999b) summarised this principle well in their assertion that

> [t]he realisation that knowledge-making is in itself a form of intervention has lead to an increasing emphasis on planning and executing research in such a way as to make explicit provision for how the research is to fit into its real-world context (p. 10).

Participatory methods are, however, not without their problems, as academics working from a critical theory perspective, such as Muller (2000), have pointed out. This discussion will be continued in chapter 6.

Data interpretation and presentation skills are not taught in many courses. This means that although both quantitative and qualitative data analysis are represented in 30 and 21 courses respectively, students are not expected to interpret (n=3) or present (n=5) the data in most cases. It may be that data analysis, interpretation and presentation is covered in depth in post-graduate courses. Under-graduate students are given the skills to begin research and to collect and record data, but are not able to process the data beyond this point.

5.2.4 Suggestions for further points of enquiry

In this section a summary is provided of the points made in this chapter with regard to issues that should be further explored in interviews with teachers of research methodology. These issues are presented as broad questions based on the results of part one. A semi-structured interview guide needed to be

developed for part two. This interview guide should operationalise the issues in specific questions that can be posed to the constructors of courses. The issues are as follows:

- The format of the introduction of social research to students: how students are introduced to social research is a very important issue as it lays the foundation for perceptions and attitudes that the students may develop about the subject. This can take place through the way in which the research process is presented, for example, as either an architectural blueprint or a more emerging process. Also, it may seem that some of the issues presented above indicate a dichotomy or tension between two opposite paradigms about how to do research, with the potential of a third way, namely mixed methods courses. There may, however, be multiple perspectives about how research courses should be constructed. One of the aims of this study is to describe, interpret and critically examine as many of these perspectives as possible.
- Including a philosophical foundation in research courses: the extent to which students are exposed to paradigmatic stances in the social sciences and are aware of the relationship between theory and method is an issue that needs to be explored. The results of part one indicate that not many courses pay attention to this topic. Lecturers can be asked to give their views on this finding.
- The dominance of quantitative methods and related themes, and the emergence of the teaching of alternate approaches: how curricula are structured and what content is included in a methods course is a further point of enquiry. This issue addresses the questions asked by Lyotard (1984) that were included in chapter 2: “Who decides what knowledge is, and who knows what needs to be decided?” (p. 9). The relationship between current debates in the politics of knowledge production and how they are translated into the curriculum of a course (if at all) needs to be explored.
- Linking methods courses to a substantive discipline: from the results in part one that describe the content of research courses at South African universities, the following question arises: are under-graduate students being trained to be mere technologists when researching the social world or are methods courses linked to substantive disciplines? Some of the names given to methods courses (mentioned earlier in this chapter) provide a clue to the answer of this question. Whether students can make the link between research and the substantive discipline they choose to practice can be explored.
- The extent of the influence of a new paradigm in the South African educational context on methods courses: current policies from government concerning higher education were discussed in chapter 2, but are not directly reflected in the content of the courses. How these policies shape the construction of the curriculum should be investigated.

5.3 Part 2: Academics' beliefs about how research courses should be constructed

In this section the results from the analysis of the interviews are presented. This is preceded by a description of the nine respondents that agreed to be interviewed.

5.3.1 Description of the sample

As described in part two of the methodology chapter, certain departments were selected for the purpose of conducting interviews. Table 8 summarises the various characteristics that were important to the selection and also reflects the sample that was ultimately chosen. As mentioned in the previous chapter, institutions (and provinces) would not be named in order to ensure the anonymity of the respondent and thereby provide confidentiality of specific interview data.

Table 8 Sample selected for interviews

	Type of course offered	*Discipline*	*Institutional mode of instruction*	*Classification of institution*	*Type of interview*
1	Qualitative	Anthropology	Distance	HAU	Face-to-face
2	Quantitative & qualitative	Human Resources	Residential	HAU	Face-to-face
3	Quantitative & qualitative	Sociology	Residential	HAU	E-interview
4	Qualitative & quantitative	Psychology	Distance	HBU	Face-to-face
5	Qualitative & quantitative	Anthropology	Residential	HBU	E-interview
6	Qualitative & quantitative	Geography	Residential	HAU	E-interview
7	Qualitative & quantitative	Nursing	Distance	HAU	Face-to-face
8	Quantitative	Industrial Psychology	Residential	HAU	E-interview
9	Qualitative & quantitative	Psychology	Residential	HAU	E-interview

Out of the 16 potential participants selected (plus a replacement sample of 10 individuals), nine were prepared to be interviewed face-to-face or returned their e-mailed questionnaires. Five females and four males took part in the study. The majority of interviewees were young or classified themselves as junior staff members; only two people had doctorates at the time of the interviews. The race of the participants was as follows: one black and eight white. It is evident from table 8 that the majority of interviews were conducted with historically advantaged universities. The mode of interviewing for most of the historically black institutions was e-mail due to their location; very few people from HBUs returned the electronic questionnaire despite the researcher's follow-up requests. Also, very few e-interviews were forthcoming from psychology departments. The researcher purposefully excluded any individuals from her own institution as she is intimately involved in all the interdisciplinary research courses presented to under-

graduate social science students and therefore preferred to become familiar with courses at other universities. By the time that had lapsed between the survey of the content of the courses and the interviews with some of the lecturers, many of the courses had changed their focus. In most of these cases the course consisted of content dealing with quantitative topics only. This has changed to the majority of courses presenting mixed methods approaches.

Taylor (1996) highlighted the demands of determining adequate sample size in qualitative research: “As a researcher doing a qualitative study, there is a pressure to carry out in-depth interviews and analysis, and yet still feel the need to have ‘enough’ cases” (p. 108). Within the time limits of the study, and based on the researcher’s judgement that the data was adequate for analysis to commence (in terms of saturation), interviewing was ended. The sample is not ideal based on the requirements stated in chapter 4, but the researcher did attempt to be inclusive of as many of the characteristics discussed as possible.

5.3.2 Reactions to the e-interview and member check

Before the results from the analysis of the interview data are presented a brief discussion follows of the reactions to the e-interview schedule that was sent to respondents and the member check that was performed for the sake of validating the analysis. As the reader will recall in the section on e-interviewing in the previous chapter, the researcher included a question that asked interviewees to reflect on their thoughts when they were answering the questions about content and curriculum development. The researcher's aim was to have some information to aid her in interpreting the data received as it was devoid of non-linguistic cues. Respondents gave answers that were focused on their own interpretation of how questions should be asked in such a situation. Answers to the question 'What was going on in your thoughts when you were answering the previous two questions?' were, for example, "The questions were very general and not at all what was expected", ”Whether enough detail was being provided, bearing in mind that the instruction was to 'be brief'", "Feeling that the questions were far too "open ended" for a self-administered questionnaire and would be more appropriate as the introductory questions in an interview-schedule that would enable the researcher to follow up with specific questions". One respondent answered, for instance, "As a researcher the focus was on the question and to give an accurate and realistic response to what was asked". They also wondered about the techniques that would be used to analyse the data and whether a follow-up questionnaire would be received. From their responses it is evident that the interviewees were focused on the technical aspects of the interview such as question formulation and their own viewpoints about research. This method of trying to gauge the respondents' reactions to the questions on a more subconscious level was not successful and thus cannot contribute to the interpretation of the data.

The researcher also re-contacted interviewees and requested them to respond to a document containing the themes that were generated from the data analysis. The member check was also not a success as no feedback was received. Perhaps the time between the interviews and the member check (approximately 10 months) was too lengthy. No comments from interviewees could be included in the themes.

5.3.3 Presentation of results

The section that follows contains the results from the analysis of the interview data. Nine beliefs held by the respondents concerning the construction of under-graduate research methodology curricula are presented from the analysis process that the researcher conducted. The categories are called beliefs because they hold the viewpoints of respondents on how and why the curriculum of their courses came into being. As explained in the previous chapter these are reconstructions based on the interpretations made by the researcher where an attempt was made to fuse horizons. Although the process is interpretive, the specific characteristics of each case (interview) are excluded from this general report as Kelly (1999) noted that the interpretation "involves examination of the commonalities and differences between the separate cases in the form of situated accounts and writing up of the processes involved without recourse to specific contexts" (p. 416). Therefore very little reference is made to a specific situation except where it can account for a distinct context within a category. Another reason for limiting 'for context' viewpoints is to protect the anonymity of interviewees, as some statements were so specific that they might lead to the identification of an individual.

The account is written in the present tense to give it a general form as well as in the past tense to indicate some of the historical aspects that have influenced particular curricula. Some quotations from interviewees have been provided to give a lively form to the interpretation, but will be kept to a minimum so that the themes within categories are developed from the researcher's interpretive account and are not based on the over-use of quotations. The reconstruction is written in the third person as it represents the researcher's perspective of the interview material (Kelly, 1999).

The beliefs are not in any order of importance. The criteria that the researcher developed and used to decide which responses should be included in a specific category are provided under the title of each belief. Direct quotes from the interviewees are italicised. Providing these extensive descriptions of the subjective experiences of the research participants gives a voice to those who construct under-graduate research courses (Willig, 1999).

5.3.3.1 Belief 1: Under-graduate research methodology courses should be constructed by means of consensus

Criteria:
Code [01] (AC) – responses that describe curriculum development as a group activity where discussions take place to reach consensus
Code [02] (AC) – responses that indicate that a person in a position of authority approved the curriculum
Code [03] (FC) – responses that describe majority consensus as marginalising minority viewpoints

The content of this idea is that the persons responsible for the under-graduate research methodology course believe that the curriculum should be constructed by means of consensus. Academics thus meet to converse with each other to reach agreement (or establish commonalities) about what should be included in the course. One interviewee mentioned that the people lecturing the course made a "*wish list*"

of topics, which was then filtered down to twelve topics (one for each week of the semester over which the course is taught). Dialogues are held within disciplines on local, regional, national and/or international levels. Some course constructors, however, although not ignorant about curricula elsewhere, focus only on what is relevant locally.

Main decision-makers are usually colleagues within a department such as course and paper leaders and "*obviously also our head of department*". Heads of departments either give direction to the development of the course or they have the authority to grant final approval of the course. In one case a programme co-ordination committee in the department evaluates the curriculum. Discussions are held on a formal or informal basis. Electronic means are also used to collect information. As an interviewee explained: "*These days it's so easy to go on the Internet and look for one university in the United States and see how they do their thing*". When a group of academics working in an institution have to consult all the departments of a particular discipline on various campuses, electronic communication is often used to discuss the content of the course. Feedback from colleagues about the course is processed and used to revise subsequent curricula. Interviewees also used words such as "*workshopped*" or "*brainstormed*" when asked how they developed their course. Academics are thus the main stakeholders that decide what the essential elements are to which students need to be introduced in an under-graduate research course.

When interdisciplinary research modules are developed across departments in faculties, some departments believe that they are marginalised. Although these departments feel that they have a unique contribution to make to the curriculum they are not consulted, and it is often the 'bigger' departments that decide on the content of the curriculum and assume that the content is applicable to all other departments. The way that they deal with their exclusion from interdisciplinary research programmes is by promoting their independent research modules to other departments. Consensus by a majority can thus leave minorities feeling left out of the process.

5.3.3.2 Belief 2: Under-graduate research methodology curricula should be constructed based on the expertise and research experience of academics

Criteria:
Code [04] (AC) – responses that indicate that the persons who construct the course rely on their research expertise and experience to determine the content
Code [05] (FC) – responses that indicate that the lecturer's specific type of expertise or research experience shapes the course content

Once a "*common philosophy*" of what the content should be is agreed on, the various topics are assigned to lecturers, based on their interest and expertise. The lecturers select reading materials, develop the course and lead discussions with students. One respondent justified this approach by saying that "*All the lecturers concerned have good track records of research and had experience of team-teaching together. No need was felt to undertake literature reviews or surveys as the staff felt they knew the skills that students in the discipline needed*". This respondent called this "*a very pragmatic approach*". Academics

also apply their research experience to the content of courses. This experience includes conference attendance where pertinent issues on the national and international research agenda are presented, personal publishing records, working with renowned people in their field, the lecturer's relationship with industry and supervision of post-graduate students where gaps in students' research skills are identified and used to restructure the under-graduate curriculum. In the latter case the construction of the content of under-graduate courses becomes a process of modification and improvement over the years that is based on the skills that students need to acquire for further studies. Lecturers thus believe that many years of experience of working with students qualifies them to develop the curriculum to suit the needs of their students as a very specific audience.

Sometimes a lack of expertise in a certain area results in courses becoming focused on a specific area of research methodology. For example, even though some departments would like students to have a *"balanced"* view of research, they can only present qualitative courses due to the lack of personnel who could teach quantitative methods at a certain level. If a course constructor has a specialised field of expertise in research, he or she focuses the content of the course on this field, for example, psychometrics.

5.3.3.3 Belief 3: Under-graduate research methodology courses should provide students with only a basic introduction to research versus students acquiring research skills

Criteria:
Code [06] (AC) – responses that describe the curriculum as a basic introduction to research
Code [07] (FC) – responses that describe the curriculum as skills training in research

Many of the respondents made it clear that the under-graduate course they teach is only aimed at providing an introduction to research. Students learn useful background knowledge about research that can sometimes be implemented as skills in everyday life situations such as learning from your immediate environment by observing in it, knowing how to introduce yourself when entering situations and critical thinking skills. Some courses intentionally incorporate critical thinking and problem-solving skills in the curriculum, but according to the respondents the majority of courses do not claim to do more than impart knowledge. A few courses have specific outcomes in terms of skills such as enabling students to write a research proposal by the end of the course. The structure of the course is aimed at achieving this. For example "*theory is not taught for the sake of it and all unnecessary technical methodological details have been thrown out*".

5.3.3.4 Belief 4: There are specific philosophies about research that underlie an under-graduate research methodology curriculum

Criteria:
Code [08] (AC) – responses that describe the lecturer's philosophy about research that shapes the way in which the course is developed
Code [09] (AC) – responses that describe the lecturer's philosophy about the inclusion of qualitative and/or quantitative approaches in a course
Code [10] (FC) – responses that reflect the way in which prescribed texts address philosophies about research

The description of philosophies that underlie an under-graduate research methodology curriculum range from beliefs about the nature of research to the inclusion of specific methods such as interviewing and participant observation in anthropological research courses. Some of the beliefs about the nature of research methodology are reflected in the extracts below:

> *"The aim of the course is for students to get a larger picture and appreciate the research process more, to become enthusiastic about research as students see research as abstract. Research is pragmatic, it is how we generate knowledge".*

> *"Wel, my uitgangspunt is navorsing is 'n proses, as jy hom nie logies deurvoer van begin na einde toe nie gaan die navorsingsproses óf onwetenskaplik raak óf jy gaan die ding iewerste verloor so ons het logies begin by wat is navorsing en dan die teorieë wat dit onderlê en die logiese stappe wat dit volg …"*

> *"… ons het besluit jy kan nie inleidende navorsing, fundamentele navorsing vir 'n student leer as jy dit nie vir hom in 'n logiese patroon gee nie as jy hom nie logies deur die hele proses neem nie".*

> *"I realised later that different problems need different methods (also non-empirical)".*

> *"That is the one distinction between anthropology methodology and all the other things because we feel you can only provide good comment and good data by being involved with people on an extended basis kind of thing; and also that's why we feel participant observation is the only way that you can actually do it, because its only once you start participating, and that might only happen after how many years before people feel comfortable with you there; that you do live among the people and you participate in their daily activities that you really get the feel and that you really can generate almost like true data (if that makes sense)".*

Interviewees who teach quantitative methods-only courses do so "*because that is what our students will use if they do research*" and therefore see qualitative methods as unnecessary. Interviewees who teach

mixed qualitative and quantitative courses do not enter into the debate about which one is more important and say that each approach is afforded equal status in their courses. These mixed methods modules are often supplemented by compulsory courses in statistics or psychometrics. One interviewee made the following point about how students experience the two different approaches:

> "*The quantitative module tends to be more familiar to average students than the qualitative because in qualitative you have to grasp many different perspectives and paradigms and delve deeper into the origin of ideas before you start selecting topics and developing questionnaires, whereas the quantitative journey is maybe more known, more familiar to the average student. Students are more familiar with results of quantitative research because feedback from research locally is often in the form of relationships. You hear it on the news in the evening (Markinor research results) and read about it in the papers. Students link case studies and ethnography with therapy or something else; it does not fall under research because research is scientific, statistics*".

Interviewees who teach qualitative-only courses do so *because their philosophy is that "because you deal with people its not just a simple like equation that you do (1 + 1 = 2 kind of thing) because you deal with people and the complexity of that as such"*.

In summary, interviewees have the following diverse beliefs about fundamental aspects of the research methodology curriculum: the course content should reflect that research is logical, a process, a journey, empirical or non-empirical, scientific; that it consists of different methods, is pragmatic, not unnecessarily technical, deals with people, and is only possible by extended involvement with research participants.

Prescribed texts do not always fulfil this view of research:

> *"It [the text] was like the typical introductory text, you know in terms of they learn all these concepts; but all these concepts you walk away I mean, you know these concepts: what do you do with them? I think that's one of the reasons why in our module we integrate, we take a chapter from this, a chapter from that and we take a paragraph here and an article there, and we use all of that to sort of compile the module*".

Few interviewees reported that they use one text for the course; rather a list of readings is provided for students who are also encouraged to find their own material. Students can consult any of the texts as the outcomes of the course are formulated in such a way that narrow, single text-bound definitions are no longer the only way of achieving the aims of the course. In some cases lecturers have written course material or textbooks that are then prescribed to students either due to the structure of the institution (the distance education model of providing learning material to students in remote areas) or due to the expertise of the lecturer in the research field. In cases where lecturers want to incorporate alternative ways of knowing (see belief 5) into research courses, textbooks are very scarce. Although textbooks are being written for the South African context they are still based on mainstream Western perspectives: *"You*

look at a cover of a text, it's very African, but on page two Africa starts to disappear so people often fool us by using these concepts but in reality it's nothing new. Same pudding, different sauce." Thus Western texts (American and European) form the main part of the materials provided to students.

5.3.3.5 Belief 5: Under-graduate research methodology courses should be constructed by means of a critique of tradition

Criteria:
Code [11] (AC) – responses that refer to any shift from traditional (historical) emphases on certain content or structure of research courses
Code [12] (AC) – responses that refer to reasons for shifts from traditional curricula
Code [13] (FC) – responses that describe future curricula that deviate from tradition
Code [14] (FC) – responses that describe how colleagues react to changes in traditional curricula
Code [15] (AC) – responses that describe how the constructor of the course made a personal paradigm shift away from traditional content

Most of the respondents described their training as 'traditional', that is, a narrow definition of what research methodology entails. Many of the research courses that they now teach have, however, been re-developed in the past two or three years to include a broader approach to research. Respondents believe that one of three processes changed their own perspectives on research. Firstly, most respondents reported going through a paradigm shift, which allowed them to become critical of tradition or one-sided perspectives of the research process. In all cases the 'enlightenment' shifted the focus from a quantitative-only (in which they had been trained) to a quantitative and qualitative curriculum. Secondly, some of the respondents believe that disciplines transform when most academics that advocated traditional positions retire from academia thus leaving the discipline open to younger people, in other words, allowing the shift to happen through changes in the composition of academics. Respondents seem to agree that, if their own training was less traditional, if they form a critical mass in a department or if they are critical thinkers themselves, they are able to change the shape and content of the research course without too much resistance. Thirdly, respondents who did not have much exposure to statistics training themselves believe that this allows them to have a broader perspective on what the curriculum of a research course should entail.

One form of critique of tradition points to the limitations of the content of previous courses. The emphasis in new courses has shifted from focusing only on topics such as data analysis to all parts of the research process in order to train students to become experts in the entire research process. This idea is based on the belief that students need a broad foundation and should not have a narrow view of the research process. For example, students should "*know the difference between empirical and non-empirical research, they should have different options available when doing research*". The rationale for this is that the design of a research project is dependent on the research problem and students should be equipped to choose whatever means are available to solve the problem.

A shift of focus was sometimes further necessitated by overlap with other modules, especially those with statistical content. Other departments thus became stakeholders in the process of developing a curriculum by virtue of the delimitation of certain content to a specific discipline. Feedback from students in terms of dissatisfaction with the duplication of the curriculum in different modules (for example statistics and research methodology) was another contributing factor. According to the interviewees, communicating with the international scientific community, building research capacity and expertise and avoiding mistakes of the past (being driven by political ideologies) are also essential if we want to retain an international standard. These activities will lead to academic freedom as alternative approaches will be acknowledged and accepted.

Although most of the courses' content was decided through a process of consensual dialogue as reported in belief one, the critique of tradition is not well-received by all academics. In one case a respondent stated that changing the focus of the course content was mostly a solo process as the new content is viewed as revolutionary in his department. Possible conflict with colleagues about changing the focus existed, as the initial designers were proponents of a quantitative data analysis-focused curriculum and everyone did not sanction the shift to a more inclusive and alternative approach. Once again, however, the approval of an authority figure, the head of department, was sought to finalise the course content. The respondent reported that subsequently some of the 'hard-line' advocates of a quantitative-only curriculum had themselves made a paradigm shift and were considering different approaches in their own research careers.

Another form of critique involves the changes made in the substantive discipline itself. In moving from a 'volkekunde' (anthropology) to a 'antropologie' (social anthropology) approach[3] in the under-graduate research methodology curriculum, research topics such as narrative ethnography and focus group discussions become relevant to the curriculum. This was possible while retaining the two fundamental aspects to anthropological research, participant observation and interviewing, in the content. The respondent described the change as follows:

> "*Traditionally white people would enter a setting such as a village and record the different practices of a community using culture as the only measurement to explain events. Often the researcher's own value system would be enforced on the data and some good information would be suppressed. Now narrative ethnography can be used to give your informant the voice instead of only your voice as the researcher regarding what you are recording*".

The future of under-graduate research methodology training as described by some of the respondents does not seem to deviate from imparting knowledge about research. It is characterised by the following:

[3] This transformation is explained in belief 9.

- possible changes in content: "*Multi-variate statistics (with the aim of model-building) are cutting-edge overseas as it is important to look at the dynamics of the context and test if the model addresses these dynamics",*
- changes in the way that research methodology is structured: "*In the ideal world I would want to see even more integration to the point where labels can start to disappear, where the student comes in and undertakes a journey to become a counsellor or to become a something in the field of psychology where research and other modules become so integrated in the programme that its not a separate entity at all. As I said earlier I think we are moving in that direction because at the end of the day there's still a part of our training that needs to be quantified, students need marks and marks must be given for something specific, but I think we are moving in the potential direction of a more integrated, contextualised programme where students don't have to, say, learn about communities in a chapter, close the book, open a new book and start learning about research, keeping in mind what he said earlier that there's already an encouragement of integrating/integration"*
- changes in topics that are focussed on HIV/AIDS, for example.

The acknowledgement of alternative ways of knowledge creation (e.g. African ways) is also new to research methodology curricula: *"It's wonderful and necessary because at the end of the day the main focus is where does knowledge come from, and if we only focus on one specific paradigm it gives a very one-sided look at how we understand knowledge, behaviour etcetera."* Although he is not in favour of leaving the positivistic paradigm behind, the respondent believes that exposing students to different paradigms will address the need for students to familiarise themselves with different ways of knowledge creation and then individually decide which journey to take, or what school to follow. Modules on the topic of knowledge creation can also support this move away from traditional ways of knowing *per se* where students become aware that research is only one way of observing and creating knowledge.

5.3.3.6 Belief 6: Under-graduate research methodology courses should be constructed to counteract students' negative attitudes

Criteria:
Code [16] (AC) – responses that describe students and lecturers' attitudes towards research methodology courses
Code [17] (AC) – responses that describe how courses can be constructed to influence students' attitudes

Some of the respondents believe that students find research methodology "*difficult*", "*abstract*", "*a punishment*" and "*vreemd*" (foreign) and that the students have pre-conceived ideas about what the subject entails, for example, a lot of statistical content. Furthermore, the belief exists that methodology is new information with strange terminology that needs to be mastered. One interviewee at a distance education institution reported that their department receives many more queries from students about the research course and that research methodology is the one subject that students fail repeatedly. Research methodology has a reputation as a difficult subject and students fail to see its relevance to their current or future professions or even their everyday functioning. Students also cannot use their work experience in a specific discipline to contextualise what they need to learn in the research course. Some

lecturers reported that they are not motivated to teach research methodology and argue amongst themselves about whom this task should be given to. Lecturers who are qualified in research (e.g. they have a research psychology degree) believe that some colleagues are 'forced' into lecturing research methodology without the necessary background, and because of this, students are sometimes given incorrect information.

Not all of the lecturers displayed a negative attitude towards research. One respondent, who views himself as an experienced researcher, connects his own research practices to the way in which research is taught to students and says that "*good teaching and good research are intimately connected, and senior students' need to be introduced to research techniques in an interesting and applied way so that it becomes real and meaningful and not simply an academic exercise".* He believes that research is a practical subject and students enthusiasm and appreciation for research should be awakened by the way the course is taught. Lecturers believe that they should construct a curriculum that is user-friendly so that students' interest in the subject is stimulated. The quotation below illustrates how one respondent's negative experience informs the way he constructs current research courses:

> "*The more purely positivistic quantitative way of thinking and approaching information and information gathering may alienate people in the field of psychology because psychologists - students - are being trained to become counsellors. Psychologists, they delve, explore, go deep, and to a certain extent that is not necessarily in line with what the positivistic paradigm may offer or prescribe. To a certain extent it may bring anxiety in the sense that research is this 'thing' you know, this thing. I remember from my own third year that it is this thing that you need to go through, it is forced onto you. I think that I have made a contribution in this institution in bringing research into the training, into the journey, not this separate thing there at the end of the corridor; that it fits in*".

5.3.3.7 Belief 7: Under-graduate research methodology courses should prepare students for post-graduate research requirements

Criteria:
Code [18] (AC) – responses that indicate that under-graduate research courses are developed with the aim of preparing students for post-graduate studies
Code [19] (AC) – responses that describe beliefs about the practical application of research

This belief is related to the process of supervision of post-graduate students by course constructors of under-graduate research curricula, as mentioned in belief two. Two opposing beliefs were prevalent amongst the interviewees. The first belief is that knowledge of research is not meaningful for the contexts in which a discipline is practised; under-graduate research methodology is only useful to students who continue with post-graduate studies as it forms a basis for the research that students must conduct to attain a post-graduate qualification. Research skills are not seen as fundamental to the discipline, but rather something that can be contracted out to experts such as marketing research companies once the student has become part of a workplace. In one case the under-graduate curriculum was developed to

focus only on quantitative research so that the post-graduate curriculum can deal with only the qualitative aspects that students use to complete their studies. These dissertations use mainly qualitative methods because it is believed that, in relation to quantitative methods, they more closely mirror the rest of the training that students receive in the substantive discipline. The second belief is that all professional persons do some degree of research in the execution of their duties, and thus skills in this field are necessary and integral to success in the workplace. For supervisors to forge and maintain relationships with the industry, post-graduate dissertation topics should focus on the problems faced by industry and try to find a solution. Also, research methodology is seen as a skill that can provide students with extra tools to be able to perform at the level expected from them in the workplace.

What these two viewpoints have in common, however, is that the curriculum has been adjusted from a narrow focus to a broader one so that students receive training in the entire research process in order to feel comfortable when doing research on a post-graduate level. Academics thus believe that they should focus their attention on the needs and requirements of post-graduate qualifications to determine the content of the under-graduate curriculum.

5.3.3.8 Belief 8: Under-graduate research methodology courses should comply with the current educational framework

Criteria:
Code [20] (AC) – responses that refer to the national higher education policy's influence on tertiary education contexts in general and research courses in particular
Code [21] (FC) – responses that describe how research courses are positioned within broader curricula that have been restructured to fit into the national higher education framework
Code [22] (FC) – responses that describe the influence of institutional restructuring on curriculum development

Some respondents believe that the current educational policy in South Africa should be taken seriously. The policy has impacted on the development of the research modules in that the new documentation was studied and principles of outcomes-based education were investigated so that academic programmes could be re-designed to build these principles into the courses. In the process most semester subjects were changed into modules. Two approaches were followed within the new dispensation: lecturers either integrated research components into specific modules or they designed research modules on their own. In some cases research methodology became a core module in certain programmes: "*The course was designed in this way to allow students to have some knowledge even if they had to leave the programme and find employment in any field of research such as field workers, community facilitators etcetera."* Research modules were also rewritten to comply with policy. Distance education institutions were not as affected by rewriting as their pedagogic format, with some adjustments, usually contained most of what outcomes-based education requires.

Complying with national educational policy is viewed as a top-down approach where academics do not have much choice. A process is set in motion whereby senior members of staff attend meetings (the aim

of the meetings is not always clear) and junior staff have to carry out any decisions made. This can lead to feelings of resentment. As one respondent puts it: "*I think amongst academics there's a certain sense of 'we can function independently, we want to make our own decisions' so I think academics are a bit unhappy about this, the top-down thing happening, but it's always been like that but it seems to be more - how can I put it - enforced on another level almost*". A tension exists between being an independent academic and having to comply with the national education framework.

Although external forces influence the structure of courses, some academics view academia as allowing them a lot of freedom in terms of benefits such as the amount of vacation time, funding for involvement in departmental projects and attendance of international conferences. Nonetheless, the university as an institution is becoming more bureaucratic due to the increase in administrative duties that academic staff are experiencing, such as exercising more control over mark systems, attending many meetings and serving on committees. This creates a tension between the administrative and academic sides of curriculum development and teaching. One respondent believes that this situation originates with the top management of the institution and could also lie in the need to ease the workload of administrative staff.

Research methodology modules have also been reduced, in some cases, due to outcomes-based education and limited resources in terms of personnel. Structuring a programme according to OBE principles results in a proliferation of new modules and, as departments want to include the core modules of a substantive discipline in programmes, research modules are cut. The reduction in space allocated for research has been managed in two ways. Firstly, research has been made an integral part of each module in a substantive discipline. In other words, research methodology does not stand on its own as a module, but forms part of the processes involved in community projects and the like. The second way of managing this problem is by reducing the content of research modules to 'essential' aspects, for example, concentrating on only quantitative methods.

5.3.3.9 Belief 9: Certain economic, social and political contexts influence the construction of under-graduate research methodology curricula[4]

Criteria:
Code [23] (FC) – responses that reflect the influence of economics on research methodology curricula
Code [24] (FC) – responses that reflect social influences on research methodology curricula
Code [25] (FC) – responses that reflect the influence of politics on research methodology curricula

In some cases developers of under-graduate research curricula are sensitive to the needs of their clients, the students. Historically black and white universities alike have to deal with students who come from diverse backgrounds, especially the low socio-economic sector. Academics believe that curriculum development needs to take place within this reality. One respondent at an HBU explained his position as

[4] Discussing the distinction between research methodology curricula at English and Afrikaans institutions within this belief may suggest ignorance and exclusion of events at historically black universities. As there were very few respondents from HBUs or people who studied at these institutions in this part of the study, it was difficult to include their experiences. The researcher is thus left in the position of relying on literature about the topic for later interpretation.

follows: "*To move into a first class and talk about the positivistic paradigm [is unrealistic as students] don't know what you are talking about to the point when you lecture a first module in statistics you teach students to use their calculators".* The mathematical ability of students also limits the type of content that can be included in courses. Content that requires this ability is often shifted to a post-graduate level. There are thus aspects external to the research curriculum that also need to be dealt with in the research class.

Some clear distinctions were also drawn in the way research methodology has been structured at Afrikaans and English institutions. The curriculum for anthropology, for example, was different at the two types of institutions. Anthropology departments at English universities would seem to focus more on the social aspects of studying people within a broader sense of the context. At Afrikaans universities, people are not necessarily studied according to culture and what is termed 'volksverwant' (an ethnos view). Other factors are not taken into consideration. This is currently viewed as a simplistic way of explaining people's behaviour. A hidden agenda based on political and religious motivations underlies this methodology, as explained by one respondent. In summary, this agenda seems to play out as follows: white people, usually conservative Afrikaners, would enter into a very traditional village and record the different traditions using culture as the only measurement to explain behaviour. Often the community involved would be functioning on a so-called 'non-Christian' level and the researcher's value system would come into play where he or she could then motivate the community's need for religious conversion. Missionary work was thus done under the guise of ethnographic research.

The type of anthropology taught at English institutions examines broader socio-political factors and was more problem-oriented in thinking. In other words, the formulation of a research question is often based on a problem-oriented background rather than trying to do a straightforward ethnography (explaining a certain group of people's culture according to its cultural position, values and worldview). A straightforward ethnographic approach also places the researcher outside the context in the role of an outsider. By critiquing tradition (see belief 5) and transforming their curricula to suit this critique, some anthropology departments at Afrikaans institutions have also made adjustments to their research courses. Ways in which this political repositioning of anthropology informs the under-graduate research methodology curriculum is the addition of new methods to the content (such as focus group discussions and narrative ethnography), and changing power relationships between the researcher and the researched (such as also giving the informant a voice when recording or writing down observations).

Another example of the English-Afrikaans split is noted in industrial psychology. Before the 1970s there were two psychology societies, one for English speakers and the other for Afrikaans speakers. These two groups merged in the 1970s but the two camps were still evident and had ideological debates on how to teach psychology. English universities integrated all areas of psychology while Afrikaans universities separated different types of psychology, for example, keeping industrial psychology separate. By attending many psychology conferences one of the respondents noticed that English universities focused on under-graduate training in research methodology so that students built on their knowledge from the beginning of their studies. Afrikaans universities only included research methodology on a post-graduate

level in the form of statistical methods while English institutions were developing a critical mindset in their students from an early stage. Critical thinking is therefore seen as an added outcome of research courses.

South Africa's social context is also seen as a metaphor that curriculum development should be based on. As one respondent puts it: *"We are confronted every second with diversity in terms of race, culture, politics and history. Why in God's name do we want to stick to one paradigm when it comes to academia and ignore realities?"* Training students in different worldviews is thus equated to the socio-political paradigm shift made in this country from the exclusion of difference (or alternative ways of thinking) to acknowledging the validity of the diverse South African context.

5.4 Conclusion

In this chapter the findings from the research conducted in parts one and two were presented. Part one began with a description of the departments that were contacted for information about their research courses or found on the NRF website. The findings from the first two levels of analysis, done according to Miles and Huberman's (1994) interactive model, were then presented to describe the content of under-graduate research courses. The data were further reduced and displayed in two conditional matrices, based on the work of Strauss and Corbin (1994). These matrices were presented and discussed according to level two of Miles and Huberman's model. Part one was concluded with suggestions for further points of enquiry for part two of the study.

The beginning of part two presented a description of the sample that was drawn from the departments that were included in part one of the study. From the thematic analysis discussed in the previous chapter the researcher identified and discussed nine beliefs held by the interviewees about how and why they constructed their course(s) in a specific way. By following the hermeneutic circle, the researcher was able to interpret meaning from what the interviewees said; the beliefs are therefore a mixture of the participants' viewpoints and the researcher's interpretation of their meaning. As mentioned in the earlier chapter, most qualitative research would bring the project to an end at this point. Research undertaken within a critical paradigm, however, seeks to go beyond this stage. The next chapter therefore provides the final integration of the findings and a critical voice.

CHAPTER 6: INTEGRATION, LIMITATIONS, REFLECTIONS AND SUGGESTIONS

6.1 Introduction

As the final section of the research process, chapter six encapsulates the four aspects listed in the heading. This chapter has been preceded by an outline of the context in which research methodology training is currently positioned, the chosen theoretical framework, the research design and the results of investigations into the content of curricula and the beliefs of the academics that construct the courses. Thus far it can be said that alternate paradigms focusing on philosophies that dictate the use of qualitative methods are increasingly included in methodology courses and juxtaposed against traditional positivist approaches to research. Another influential factor is the new educational paradigm that prevails in South Africa, namely, outcomes-based education. This paradigm emphasises the importance of creating a learning environment in which context and relationships are acknowledged. A specific learning environment is created that is in contrast to the traditional environment. The latter environment encouraged rote learning where teachers dictate to students the different research methods and how they should be practised correctly to establish the truth about a phenomenon. Students memorise the methods and are able to repeat them (to a greater or lesser extent) on demand. The message that is communicated about research methodology in this environment is that it consists of separate parts that have no relationship to one another.

In an outcomes-based paradigm teachers and learners are provided the opportunity to be actively involved in the construction of the curriculum. The emergent education paradigm that encourages an environment of learning about alternate research paradigms and the politics of knowledge may be more viable in a learning context that stresses that "it is the *nature* of the *relationship* between the parts that *defines* the nature of a particular environment" (Lubisi et al., 1998, p. 75). This is the pattern that connects, the description of the relationship between different parts of a phenomenon that Bateson (1979) described. According to Bateson, the education system fails to teach students about the pattern that connects:

> Why do schools teach almost nothing of the pattern which connects? Is it that teachers know that they carry the kiss of death which will turn to tastelessness whatever they touch and therefore they are wisely unwilling to touch or teach anything of real-life importance? Or is it that they carry the kiss of death *because* they dare not teach anything of real-life importance? (p. 16).

South African education policy reform has sought to address the issue of real-life relevance. Specifically, it has turned to proponents of Mode 2 knowledge to inform initiatives for change. These circumstances will form the background of the discussion that is presented in this chapter consisting of four sections. Firstly an integration of the literature, theory and findings will be presented. This assimilation consists of six parts: (1) a brief note on the content of under-graduate methodology courses, (2) the curriculum as a

dialogical activity *à la* Habermas, (3) the researcher as expert and the expert teacher, (4) social disregard, (5) normal and abnormal dialogues, and (6) the effects of current higher education policy on the curriculum. The discussion will not be dealt with in two parts as with the format of previous chapters, but will be structured in the six parts scheduled above with an emphasis on either the quantitative results or the qualitative results or both at times. The aim is not to present the truth, but to convince the reader that the researcher has "uncovered sufficient reliable indications that the knowledge claim is the best of the available alternatives" (Polkinghorne, 1983, p. 259) because, as Muller (2000, p. 163) stated "… some research findings tell us more than others do ... some claims to knowledge are less valid that others are …". Secondly, the limitations of the study will be exposed, such as the lack of participation of HBUs. Thirdly, some the researcher's personal reflections about the research will be expressed, mainly regarding the positioning of research methodology in the discipline of psychology and how some of the limitations of the study were due to factors such as insularity of tertiary institutions caused by historical separate development in South Africa. Lastly, suggestions are made for future and/or additional research on the topic of under-graduate research methodology courses in the social sciences based on the idea of academic communities of practice. The initiation of specific research projects arising from the findings of this study is anticipated. The discussion of these projects concludes this chapter.

6.2 Some notes on content: the quantitative-qualitative debate

Tashakkori and Teddlie's (2003) finding that research courses in the US are either quantitative or qualitative is not echoed in the data from this study at South African universities. In South Africa the majority of courses include quantitative and qualitative content. There is, however, a heavy reliance on the methods that are linked to the traditional scientific paradigm described in chapter 2. This seems to be because the content applicable to this approach dominates the curriculum and supplementary and/or compulsory modules are usually based on statistical and/or psychometric content. It is interesting that none of the interviewees that teach a mixed methods course explicitly stated that quantitative research is the most fundamental aspect of their curriculum, although the results from phase 1 could be interpreted in this way. The student is thus exposed to a specific system of doing research, namely, using quantitative methods and to a lesser degree, qualitative methods.

It also seems that methods courses are not integrated into substantive disciplines and some are even becoming interdisciplinary efforts. As argued by Williams (2000), there is no ontological foundation for social research methods, merely epistemological justifications of the methods that are used to study the social world. If students are trained only in these methods without a link to what Williams calls a substantive discipline, such as psychology, sociology and so on, a situation would arise where we "run the risk of producing technologists who are equipped only in investigative skills (and perhaps their methodological/philosophical foundations) and have little or no knowledge of sociological or political theory (etc.)" (Williams, 2000, p. 163). The interdependence between substantive disciplines and their fields of research is an important issue that should be investigated as it has implications for the way in

which students are trained in research. As Williams asks, should students be trained solely in tools for the investigation of the social world or should the training be linked to a 'non-investigative social science'?

Terre Blanche and Durrheim (1999b) have argued that following a strict methodological path leads to a methodolatory position where the context, within which knowledge is produced, is ignored. The role of context in social research has been discussed in numerous sources (see, for example, Firestone, 1990; Lincoln & Guba, 1985; Mouton, 1996; Patton, 1990; Polkinghorne, 1983; Terre Blanche & Durrheim, 1999a). One of the aspects that these discussions have in common is that the term 'context', in social research, refers to the background information that the researcher provides together with the findings from an investigation so as to allow the reader to understand the features that have shaped the particular human experience that was studied. This definition of context does not restrict itself to an interpretive approach as inferred by Kelly (1999), but can also be applied to positivistic research as described by Firestone (1990). Firestone uses the term 'contextualising' to refer to the procedure of providing the reader with the necessary information to make an informed decision about the applicability of the research.

The role that context could play in quantitative studies is not always conceptualised in the way it is described above. Mouton (1996) discussed possible sources of error in research that could originate from the context in which researchers find themselves and illustrated this by saying that "[s]tudies on the influence of the research setting have shown that the researcher's impressions of the participant's home or place of work frequently led to significant data bias" (p. 155). The context in which the research takes place is viewed as a possible source of error and this error is something that should be excluded from the results. Mouton further equates studies of a 'contextual nature' with qualitative research because, in his opinion, meaning and significance are taken into account when a qualitative strategy is followed. If context is as significant a concept as suggested by the literature, and if qualitative approaches can be equated to studies of a contextual nature, then the message about the meaning and significance of human experience is not being conveyed to students. The majority of students receive training mostly in quantitative methods with little emphasis placed on qualitative methods that stress change, context, meaning, significance, reflexivity, humanism, emancipation and so on.

Qualitative methods are, however, not excluded from the methodolatory position discussed above. They can also be learnt and used in a way that reduces them to mere practical techniques as opposed to acknowledging the more reflexive stance they encourage (Terre Blanche, 1997). Researchers who make use of qualitative methods may be just as guilty of ignoring the context of human experience that they are investigating. The inclusion of alternate methodological approaches in the courses implies that students have alternatives to choose from when doing research. Both quantitative (more) and qualitative (less) methodological knowledge (and some skills) are expected from students. It is assumed that the rationale for this structure is so that students will be able to choose the most suitable method for the situation within this given set of alternatives. There is little evidence from the content of the courses or from the statements made by the lecturers, however, that suggests that training in methods is coupled with an epistemological stance. The apparent lack of theoretical background that students are receiving in

research courses is a matter for concern. Whether students are able to make a link between paradigmatic stances and the methods they are using to do research is questionable. Whether students are able to acknowledge "the political processes involved in the fabrication of what passes for knowledge in psychology" (Terre Blanche, 1997, p. 60), which is on a higher level of cognitive functioning, is even more doubtful.

If students are made aware of alternative approaches[1] such as those described in chapter 2, with their own ontological, epistemological and methodological standpoints, a position of epistemological pluralism is thus adopted. Knowledge claims can be evaluated as to their acceptability within the community they represent. Results of research therefore become perspectival, that is, 'true' to the people that co-constructed the knowledge with the researcher. What may lie behind the retention of quantitative methods as the 'correct' way of producing knowledge for the social world is that the relationship structure between researcher and researched has been staged in a specific way. Changing this position would mean a change in the structure of knowledge production, one that quantitative researchers may not feel as comfortable with (Seel, 2000). That quantitative methods alone will not remain relevant to the practising social scientist, as discussed in chapter 2, is evident from the emerging shift in curricula content to qualitative approaches. The gap between academic research and practice-orientated research may be narrowed by the introduction of qualitative methods that Seel described as being better suited to the daily practice of psychology. Also, as academic researchers may struggle to let go of traditional paradigms, they may find a compromise in presenting both.

Presenting a research course that educates students in quantitative and qualitative approaches is not condoned by all academics. Lincoln (1990), for example, questioned her previous conviction that two-tracked research courses (her term) should be provided to students and called this approach 'training for schizophrenia'. She advocated a commitment to either a conventional or an emergent paradigm and intensive training in the chosen model. This contradicts the argument in chapter 3 that it is the research question that should drive the choices made in research projects and not the epistemological standpoint of the researcher. Providing both methodological alternatives (quantitative and qualitative) in one course allows students to answer any research question that they might encounter, but silences the voice of a singular epistemology, meaning a theoretical framework that adheres to certain methodologies and excludes others as possible modes of enquiry. This creates a new hegemony (methodological plurality) that could possibly be based on the pursuit of fashion, illustrated in the fiction work cited at the beginning of this manuscript. Presenting both approaches to students seems to be a fad; this issue will be explored in various parts of this chapter.

Another possible reason for the curriculum being structured around one approach may be a capitulation to students' perception that qualitative research is 'easier' than quantitative or that, as they are interested in researching certain topics and not others, it is not necessary to be literate in both methods. One of the respondents states this as follows: "*So as hulle [the students] kwalitatiewe navorsing doen, dan kom dit*

[1] Eisner (1990) defined alternative approaches or paradigms as "… views of mind and knowledge that reject the idea that there is only on single epistemology and that there is an epistemological supreme court that can be appealed to to settle all issues concerning Truth" (p. 89).

tog neer op kwalitatief, dan wil hulle nie eintlik nou op M-vlak - waar hulle klaar hulle onderwerp gekies het - wil hulle nie nou as hulle besluit het op een of ander navorsing oor life experiences (dan wil hulle kwalitatiewe navorsing doen), dan wil hulle nie vir twee tot drie dae luister na kwantitatiewe navorsing nie. So daar het ons gesien dat hulle wil graag 'n onderskeid tref dat ons sê hierdie is 'n werkswinkel vir kwalitatief of kwantitatief maar dit is in die geval waar 'n student reeds 'n besluit geneem het". A third basis for this trend in curriculum content will be discussed in section 6.4.

Silverman (1993) asked "Why should we assume … that we have to choose between qualitative and quantitative methods?" (p. 23). A final word on whether or not to include quantitative and/or qualitative methods in the curriculum is necessary to suggest an alternative path for curriculum construction as well as to point out a false consciousness amongst academics that are involved in under-graduate (or any) research courses. Research courses were described by most of the respondents in terms of quantitative versus qualitative methods (or quantitative and qualitative methods) and are thus being constructed by making distinctions on a methodological level. These distinctions are not as clear-cut as some may think. Polkinghorne (1992), for example, described humanistic researchers in two ways: one group espouses numerical data and statistical analysis (using traditional methods in psychology) while another group views linguistic techniques as superior for understanding people. Researchers who class themselves in the same epistemological framework thus endorse different methods for researching human phenomena. This supports arguments for the epistemological and pragmatic influences on choice of research method described by various authors as follows:

> There is no single method that is privileged in the production of knowledge about human existence. Each method, including those that employ numeric procedures and those that employ qualitative procedures, is a lens that can bring into focus particular aspects of human being … Choice of method for a particular project depends on which is most useful for addressing the research question (Polkinghorne, 1992, p. 233).

> … in themselves techniques are not true or false. They are more or less useful, depending on their fit with the theories and methodologies being used, the hypothesis being tested and/or the research topic that is selected. So, for instance, positivists will favour quantitative methods and interactionists often prefer to gather their data by observation. But, depending upon the hypothesis being tested, positivists may sometimes use qualitative methods – for instance in the exploratory stage of research. Equally, interactionists may sometimes use simple quantitative methods, particularly when they want to find an overall pattern in their data (Silverman, 1993, p. 2).

For Unger (1983), quoted earlier in chapter 3, the danger lies in "our unawareness of the epistemological commitments we make when we use such tools unthinkingly" (p. 15). Also, Terre Blanche and Durrheim (1999b) pointed out that "[b]ecause different paradigms exist simultaneously, it is possible for the same researchers to draw on more than one paradigm, depending on the kind of work they are doing" (p. 7), although most researchers prefer to work within one paradigm. Choice of research method is thus partly

epistemological and partly pragmatic. Students should be able to make decisions on these levels instead of on purely methodological grounds. An example of this approach is showcased in chapter 4 where the researcher presents her commitments and how they informed the rest of the study. The researcher thus strongly identifies with Silverman (1993) when he stated that "[t]he new generation of social scientists, I feel, need to be rather less smug about the rectitude of their affirmed belief in a non-positivistic research programme. Programmes are no substitute for lateral thinking and rigour" (p. 23).

6.3 Curriculum construction as a dialogical activity with the purpose of achieving consensus: communicative rationality

Almost without exception, decisions about what to include in the under-graduate research methodology curriculum are made within a dialogical activity. This entails that the people responsible for the course sit down around a table or use a virtual mechanism such as e-mail to discuss content, structure, and so on. There does not seem to be much evidence for making a case that illegitimate compromises take place in curriculum construction. Communicating ideas to colleagues has the function of reaching a consensus (Habermas's *Einverständnis)*. Mourad (1997) summarised Rorty's argument in this regard: "scholars should think of knowledge as simply a name or label for the subject of agreement among any group of humans concerning belief, values and action …" (p. 118). It is, however, the person with the most persuasive argument whose ideas win the battle for dominance. Both Rorty and Habermas attempted to eliminate this dependence on the people who make up the membership of the group as relationships of power could determine the outcome of conversations about curriculum content. Fraser (1994) summarised Habermas's view of autonomy that encapsulates the meaning of an 'ideal speech situation' as follows: "Autonomy refers … to an ideal "dialogic" process wherein individuals with equal right and power to question prevailing norms seek consensus through conversation about which of their apparently individual empirical needs and interests are in fact generalizable" (p. 200).

The norm seems to be, however, that mostly younger members of staff are being tasked with presenting research courses. This may be due to more senior staff preferring to teach on a post-graduate level. Any power in terms of status of seniority is thus somewhat diluted and it could be argued that other factors are more influential in determining consensus such as gender, race and research knowledge. Habermas's ideal speech situation thus seems to be achieved, although it will be pointed out later that this is not always the case. Heads of department are often the last barrier to finalising the course's content and structure, which may indicate that power is not exercised within the speech situation where consensus is achieved, but externally by means of approval or disapproval of the outcome of the consensus.

6.4 The researcher as expert and the researcher as expert teacher

Respondents position themselves as experienced researchers or people who are interested in the field and use this expertise to inform curriculum content. Not all of the interviewees perceive their colleagues as equally competent, however: "*We have many jokes, like when you get study material that is incomplete or incorrect, and the more ignorant facilitator may facilitate it as the truth*". This respondent views this as a disadvantage to the student. A hierarchy amongst research lecturers exists, but it is not clear how this intervenes when academics are attempting to achieve consensus. One possibility is that the more 'expert' researchers adjust the material to reflect what they claim is correct or that they do not pay as much attention to the viewpoints of individuals that are perceived as non-experts and thus exclude them. In their study on research courses at tertiary institutions, Tothill and Crothers (1997) found that less than half of methodology lecturers were conducting research into issues of methodology and concluded that "It would thus appear that the role of 'specialist' is defined by academics in terms of teaching areas, rather than research" (p. 14). It seems that the lecturers use their own training in research and consequent experience in practising research to inform curriculum content.

Not only did the lecturers interviewed view themselves as expert researchers, but Bradley (1998) also argued that psychology is especially guilty of encouraging the separation of psychologists' own subjectivities from the topic that they are investigating. This feeds into the way in which psychology is taught. Students thus become the acted-upon objects that Bhana (1999) described. Bradley's (1998) assertions about the social scientist as expert and further as expert teacher are thus substantiated by the findings in this study. Two quotations from the protocols of respondents are illustrative of this:

"Dit gebeur dat ons hulle partykeer heeltemal moet omswaai na 'n ander benadering of onderwerp. Studente is aanvanklik geneig om baie wyd te werk, om navorsing te wil doen. Mens moet maar die ouens rig".

"En ek het studente van 27% na in die 80% omgedraai net omdat hulle daai logiese volgorde gevolg het en deur die proses gegaan en navorsing van die begin af te vat, want studente is geneig om te spot en '*hierdie lyk te moeilik, hierdie lyk nie belangrik nie*' *en dit te* skip *en dan verstaan hulle nie die volgende stap nie. Jy kan nie* sampling *doen nie as jy nie weet hoekom jy besluit het dit is 'n kwantitatiewe studie nie. So ek het baie sukses daarmee gehad*".

A more detailed discussion of power will be presented in the section that follows.

6.5 Mißachtung

Also relevant to the discussion of the findings of this study is Honneth's (1999) concept of *Mißachtung* or social disregard. As the reader will recall this refers to people being disrespected or not receiving recognition in social interactions. It is argued that the *Einverständnis* achieved regarding the curriculum

for a research course is the result of conversations held between academics in an ideal speech situation that excludes other significant voices. Power is thus not necessarily exercised in interactions between lecturers. It manifests in the curriculum that is presented to students as a taken-for-granted situation. Lecturers' dominance over the students is maintained in the dialogical activities that they undertake with colleagues that confirm their position of authority in the academic society. Students recognise this authority and consent to it. Kincheloe and McClaren's (2000) definition of power from a critical theory perspective, namely, as oppressive, is applicable here. The current manner of curriculum construction, as defined by the interviewees, results in a situation where the lecturer determines the content as well as the acceptable criteria for assessing students' competencies. If students achieve these competencies they can move to the next level of learning about research.

Disregarding students' needs may be an explanation for the negative attitudes they display towards research courses. Students could also experience powerlessness, which "arises from passive acceptance of oppressive cultural 'givens', or surrender to a 'culture of silence' " (Bhana, 1999, p. 235). Some of the ways in which students may react to this include more passive mechanisms of resistance, such as a dependency on lecturers and failing the research course many times. The quote below from an interviewee supports this conclusion:

> *Toe ek die* research *aangebied het, het ek 'n remedierende program opgestel omdat ek verskriklik baie studente gehad het wat gesê het hulle kan dit nie doen nie, dis moeilik, en hulle probeer dit uitstel en uitstel tot heel aan die einde want dis is nie nodig om dit in hulle tweede jaar te doen nie. Daar was nie* pre-requisites *nie en daar's studente wat agt keer gedruip het. Al wat die program basies was, is dat hulle begin het met die eerste studie-eenheid, die basiese ding doen en dan beantwoord jy. Ons het selfevalueringsvrae en aktiwiteite in ons gidse (ook in die* research*) gehad, en dan het ek hulle deur die hele proses gevat van jy doen hierdie studie-eenheid, jy moet eers die basis kry, weet wat is die wetenskap, weet wat is tradisie en daai goeters, en die oefening te kan doen en dit te verstaan voor jy na die volgende studie-eenheid toe gaan, en so moet jy deur die hele proses gaan.*

A counter-argument could be that the way in which research courses are constructed is probably relevant to most other curricula. Research methodology is often taught separately from a substantive discipline, however, and may even be presented in an interdisciplinary model as evidenced at some universities such as Pretoria and UNISA. Extrapolating from the consequences of this situation, and following Williams (2000), it could be said that students do not understand the link between research and the profession that they are pursuing and therefore do not appreciate its relevance to their future undertakings. This sentiment is captured in one respondent's perception of students' attitudes towards research: "*hoekom wil ek navorsing doen want ek is 'n* nurse *in 'n saal; wat wil ek met 'n vak soos navorsing doen? Ek is 'n sielkundige: ek wil terapie doen, hoekom moet ek navorsing doen?*"

It could be further argued that the adoption of Mode 2 knowledge and its influence on curriculum content could exacerbate this problem as interdisciplinary co-operation is emphasised and general, transferable skills are *de riguer*. These post-modern ideas have already been rejected in chapter 2 in favour of a more conservative approach. This issue will be discussed in more detail in section 6.7.

6.6 Normal and abnormal dialogues

Another external factor effecting power over the curriculum is historical verification of the content. In other words, does the course adhere to traditions inculcated by experts over time (Lyotard, 1984)? Some of the respondents mentioned the role of tradition (what they had been subjected to in their own studies) in informing the choices they made in constructing the course. This tradition is held within the legitimated discourses of power that Kincheloe and McLaren (2000) identified as operating in academia and that dictate the content, teaching methods, materials and philosophies suitable for specific courses. Tradition is, however, often the focus of criticism and is blamed for the way that students perceive research methodology. A normal dialogue amongst academics that construct research courses is thus that tradition should be reviewed and replaced with new material if necessary so that students' attitudes towards research can change. New material is represented by qualitative methods as an improvement on having only quantitative methods present in the curriculum; the distinction between tradition and improvement on tradition is made on the methodological level, as discussed in the section on quantitative versus qualitative methods in the content. By acknowledging the limitations in curricula of the past, academics actively seek to change the discourses; but by doing so they may be instituting new hegemonies that may still limit students' success as researchers. This will be discussed further in section 6.7.

Perhaps because the research participants were so homogenous in educational background, age and race, not many abnormal ideas were evident. Most statements adhered to the same norms in terms of education and specifically research methodology courses, which may point to the extent to which tradition is still ingrained in the ideas of the interviewees. The most radical approach to curriculum construction that was mentioned was the idea of not teaching theory merely for the sake thereof. Unnecessary 'technical methodological details' are excluded from the curriculum and research is integrated into the modules instead of being a module on its own. For example, students are taught how to do research in their community project module. This structure counteracts William's (2000) fear that students are being taught to be technicists instead of researchers in a substantive discipline.

Another normal dialogue between academics, which is not expressed explicitly but is implied in their statements, is that academics are the only party that should be sitting around a table constructing the curriculum. When prompted by the researcher, one respondent did acknowledge that there are other role-players that need to be consulted and that she was in the process of developing a questionnaire to do a survey of former students' needs in the workplace to inform future course content. This is discussed further in the section that follows.

6.7 The (non-)effects of Mode 2 research on under-graduate research methodology curricula

According to Tashakkori and Teddlie (2003), researchers in practice demand 'research experts' that are capable in using both qualitative and quantitative methods. The implication of this for higher education is that "those who teach research methodology in the social and behavioural sciences have a responsibility to prepare their students for a professional world that is increasingly using mixed methods" (Tashakkori & Teddlie, 2003, p. 61). This implies a scientist-practitioner model. It would appear that under-graduate social science students in South Africa are slightly better prepared for practice than their American counterparts, but that the motive for teaching mainly mixed methods courses can be questioned. The contention that providing a mixed methods research course prepares students for current practice and Lyotard's (1984) idea of performativity do not manifest in the viewpoints of the lecturers. Many interviewees stated that the under-graduate curriculum prepares the student for post-graduate research either through projects that the teachers are involved in or just to serve the achievement of a post-graduate qualification. The academics that were interviewed thus represent under-graduate students as future post-graduates. One implication of this could be that students should be proficient in quantitative and qualitative research so that they can address any academic question that arises. It thus seems that the pressures that academics face drives curriculum content: "[t]he production of scientific proof costs money, with the result that scientists who can maximize output (proof) while minimizing input expended in the process of proof (energy, and thus cost) get funded" (Lyotard, 1984, p. 21) and/or promoted and/or respected professionally. It is the current researcher's assertion that we are training under-graduate students for their possible future roles as post-graduates for the mileage that we can extract from them in terms of research outputs. Constructors of research methodology courses may thus be strategically structuring the under-graduate curriculum to suit their vested interests, that is, their own academic goals. Their false consciousness is based on their unquestioning beliefs that they are the sole stakeholder in determining how the knowledge that students gain should be constructed.

As academics believe that under-graduates should be educated so that they will be successful post-graduates, their courses are constructed to address this belief and train under-graduate students to become scientists for the practice of further science rather than becoming scientist-practitioners. Respondents described their courses as 'basic' and 'introductory' and it could be argued on this basis that as researchers ourselves we do not believe that students can be taught to progress beyond this level at an under-graduate stage. As stated in chapter 1, the focus of this study is on under-graduate courses as the vast majority of students exit tertiary education with a first degree and depend on this qualification to find work. As social scientists they will be expected to have a certain amount of competency in researching human behaviour and thus, to echo Tashakkori and Teddlie (2003), it is important to prepare them for the contribution that the economy will demand of them.

One interviewee did acknowledge the needs of the workplace in informing curriculum content:

Die terugvoer wat ek kry is vreeslik positief, byvoorbeeld mense van die regering sê hulle moet in hulle werksomgewing gereeld klein projekte aanpak en dit het vir hulle verskriklik baie riglyne gegee en hulle gebruik ons gids nogsteeds as 'n riglyn hoe hulle 'n navorsingsprojek moet aanpak.

It could thus be concluded that although it is strongly embedded in South African higher education policy, the Mode 2 knowledge paradigm, discussed in chapter 2, is still in a fledgling stage in under-graduate research methodology curricula. The pressure from both the real world (research practitioners and business) and from government (in their policy and as an employer) to provide people who can answer key research questions is being ignored. Although some influence of the Mode 2 paradigm is evident in the way methods courses are being integrated into the content of substantive disciplines and interdisciplinary co-operation between departments, these activities are limited. When research methodology is constructed and presented as an integrated course across disciplines in a faculty, positive spin-offs such as the sharing of resources and diversity of training takes place. From the interviews with lecturers, some of the negative consequences of adopting a Mode 2 approach are also evident. One respondent reported that the voices of smaller or non-co-operative departments are silenced. Departments that might make a meaningful contribution to a research course because of their particular field of expertise (Polkinghorne, 1992) are excluded because they have less power in the faculty and course construction is left to larger departments such as psychology and sociology. The way that marginalised departments deal with this situation is by creating 'organisational niches' whereby they "bureaucratise knowledge by subject matter and stake a claim to research and train students in it" (Chubin, 1986, p. 4). In this way a department may see a certain research method as integral to their discipline and claim that they alone are experts on the topic and have the sole right to present related material. This may cause more conflict between disciplines and further marginalisation of small departments.

6.8 Reflexive occasions of this study

In this section, the manner in which some of the issues of reflexivity discussed in chapter 3 manifested themselves, before, during and after the research, will be described. An attempt is made to provide "… a fully reflexive analysis … asking not only how life experience influences research, but also how research feeds back into life experience …" (Wilkinson, 1988, p. 494). The self-reflection advocated by critical theory that manifests in a goal, is discussed to an extent in this section with more concrete interpretations made in section 6.9.

6.8.1 The positioning of research methodology in the discipline of psychology

The fundamental reason for including other social science disciplines in this study is the researcher's personal view of the position of research methodology in psychology, a view that has sometimes been expressed by similar-minded research-orientated colleagues. It is the researcher's experience that research methodology is not always viewed as an integral part of the discipline of psychology, but as a necessary evil that will allow academic psychologists to publish and therefore be promoted, or which allows psychologists in private practice to attain more academic qualifications. This viewpoint is supported by Tothill and Crothers' (1997) finding that in the rankings of academics specialising in methodology by discipline, psychology is positioned sixth after anthropology, history, industrial studies, social work and education. Certain observations that the researcher has made also highlight this point. These include the focus of psychology conferences such as the annual *PsySSA* congress. The majority of papers, although usually based on research undertaken, emphasise clinical aspects of psychology and mostly ignore the importance of methodological issues inherent in the designs. Hardly any papers focusing on methodology in itself are included. The argument could be made that conference participants do not submit such topics, but perhaps they do not feel that they have a sympathetic audience. This could be one of the reasons for the establishment of a separate and parallel conference (*Qualitative Methods Conference*) to the *PsySSA* event that concentrates on qualitative research methodology.

This trend is unlike other international events such as the annual congress of the *International Association of Sociology* that devotes entire sessions to methodology. The researcher prefers to attend sociology rather than psychology conferences, as they address specific methodological issues in the social sciences in a serious manner. Also, the Professional Board for Psychology, located within the structures of the *Health Professions Council of South Africa*, has made overtures about excluding research psychologists from the list of registered psychologists. Although this suggestion was made in 1996/1997, it nevertheless perpetuates an image of research as being separate from the discipline of psychology. It also sends the message that researchers in the field of psychology are considered as outsiders and as such they should be sidelined from the discipline. As a consequence, psychological researchers may feel isolated from the discipline of psychology and find comfort in the realm of research methodology as a technicist (see Williams, 2000). A more current example of this attitude is the *Health Professions Council of South Africa's* (2003) latest restructuring of the discipline which relegates research to an "ability to conduct a research project and implement its findings" (p 9.) and which requires all students to show core competencies in therapeutic modules in order to register as a professional. Research psychology is not mentioned in the document as a particular domain of practice.

Although this study falls in the discipline of psychology, the researcher decided to include all social science research courses in this study to ensure interest from and applicability to a larger group of people. Although the issues addressed above have not received much systematic attention from

researchers in South Africa[2], they have played a large role in determining the scope of the study and thus further research is necessary in order to investigate psychologists' attitudes towards research.

6.8.2 The lack of co-operation from some respondents

Most of the potential respondents contacted telephonically for face-to-face interviews reacted positively to the research and agreed to be interviewed. Despite some suspicious attitudes about the aim of the research - perhaps they wondered if I was judging their academic integrity by the quality of their teaching - the respondents seemed to co-operate very well and provided the researcher with a great deal of information. One respondent referred the researcher to the ethics division of the institution she works for in order to gain permission to conduct an interview. The researcher decided not to pursue this respondent as contentious statements had been made about institutional practices by some interviewees. The researcher felt that as she could not guarantee the anonymity of the respondent, because her interview would be vetted by the ethics division, and so the respondent may have been reluctant to speak openly and honestly about some of her experiences. Also, there were already enough respondents in the relevant category. Most academics contacted telephonically and asked to complete the e-interview were also willing to do this. Not all of them complied with this request, however. Very little response was received from individuals who were contacted by e-mail only. This could point to a methodological flaw in the research: not building a personal relationship with potential respondents or making the effort to meet them in person.

The researcher believes, however, that a more salient reason for this phenomenon is related to the legacy of Apartheid: different education structures and institutions were made available to different groups of people in South Africa, and relationships were not encouraged between institutions. Although Apartheid has been dismantled, the reluctance of institutions to develop closer relationships with each other remains. This point will be discussed in detail in the section on limitations of the study later in this chapter.

6.8.3 The political dimensions of the research

Being the researcher in this study of under-graduate research methodology courses, and at the same time being a constructor and teacher of such courses, placed me simultaneously in the role of outsider and insider to the people involved in this activity. Parker's (1999) relational approach to reflexivity is relevant here. Being an insider, that is, an academic constructing and teaching under-graduate research courses, probably gave me a greater degree of credibility than a person who does not take part in these activities, and allowed me easier access to the participants. Also, most of the interviewees were about the same age as myself and we could exchange stories about our own training and experiences within a

[2] The Tothill and Crothers (1997) report did mention that their respondents at Afrikaans-medium HWUs "complained of a lack of research culture (and sometimes of outright hostility towards research)" (p. 26) although the research did not aim to investigate this issue.

certain generation of tertiary educational practice. This also made most of the interview situations more comfortable as power issues were not as prevalent as I had initially expected.

As an insider I could relate to many of the issues that fellow academics raised. I became aware that many of the aspects that I was questioning, based on current literature and critical theory, were things that I was guilty of myself. It was therefore difficult at times for me to ask colleagues to provide information about their courses and then critique the way they think about research and how this informs the way they construct their courses. This project placed me in the role of the expert voice and perhaps the question could be asked is: Who am I to pass value judgements on my colleagues?

As an outsider, that is, someone not directly involved in constructing and teaching the specific courses that I surveyed, gave me a more distanced perspective: the objectivating outsider's perspective to which McCarthy (1994) and Wedekind (1997) referred. It was easy to forget at times that the way I view research also influences the way I think it should be taught; I could thus critically reflect on what the participants were doing and use this knowledge to attempt to manage certain social processes. This contradicts Bohman's (1999) ideas on critical social enquiry and will be discussed further in section 6.8.4.

Not having received any formal training in critical theory I found it counter-intuitive at times to the epistemologies I had been exposed to. I had to become acquainted with past and present debates and find a methodological pathway that suited this theoretical position, while still allowing a pragmatic approach to the research design. If there are signs of a positivistic frame of mind in this manuscript then it is indicative of the contradictions within myself and the indecisive person I am. To be a positivist or not is a question I often ask myself and have yet to answer. Perhaps I never will decide. Not making a specific choice, manifested in the 'tolerant pluralism' (a term borrowed from Muller, 2000) advocated in this study, is potentially problematic in two ways. Firstly, this solution might not please the whole of the academic community and secondly it could result in the kind of slavery to fashion described elsewhere in this manuscript. As Muller (2000) put it "Must we then choose?" (p. 162). There is a paradox in choosing a relativist epistemology. Selecting to work from a relativist paradigm presupposes that it is a relativist theory that will provide the answers to the research problem, but relativism, as stated in chapter 2, does not adhere to this type of hegemony and thus contradicts itself (Blake, 1997; Muller, 2000; Scheurich, 1997). Additionally, opting for realism means accepting the kind of positivist arguments outlined in chapter 2 and places the selector at the mercy of criticism by the relativists. Muller (2000) resolved this paradox by accepting that statements made by researchers are not the last word on anything, but must be allowed to be judged as has been suggested in the introduction to this chapter and in other chapters. We are thus continuously adding to the knowledge that we have by allowing ourselves to be open to reflecting on our perspectives: "Thus we end up between relativism and objectivism, in a knowledge which is wavering, evasive yet at the same time at least temporarily valid" (Alvesson & Sköldberg, 2000, p. 86).

Choosing critical theory as the framework for this study was a political and strategic decision that suited my needs in two ways. Firstly, it allowed me to expose the weaknesses of the current way of constructing

curricula and propose another way of doing it, which will be discussed in section 6.9.2. According to critical theory the criticalist may propose better ways of doing things and in this way I am able to make a standpoint for what I see as being the better truth, namely, my way. Secondly, very few theories make specific provision for using quantitative and qualitative methods in their research design, and as I was trained in both approaches and find it difficult to make a choice between the two, it was easier to find a theoretical framework that would allow me to exercise my personal preference. The older versions of critical theory especially those proposed by Horkheimer, Adorno and Marcuse, also appeal to my personal convictions, as a radical environmentalist, of the dangers of instrumental progressivism in the sense of relying on science and technological progress to control the natural environment[3]. Also its consequence for education by making "education increasingly more efficient in serving … the economic, political or cultural needs of … society" (Robins & Webster, 1999, p. 175) is cause for concern. As Dickens (1992) pointed out, however, trying to do away with current social, economic and political structures is not a solution: "… equally important are the relationships and structures which created this consciousness in the first place and which could become the means by which a new consciousness develops" (p. 193). These arrangements could be used towards more emancipatory ideals as discussed in later sections.

6.8.4 Methodological considerations

Although the methodological pluralism advocated by Habermas (1971) formed the basis of the research design of this study, a more pragmatic approach was taken. Methods were chosen that would create a context in which the research questions could be answered; this context allowed the researcher to systematise and control the situations of enquiry in an objectivating manner. Habermas (1971) described this process as follows:

> The objectivations in which the active mind congeals in purposes, values, and meanings represent a structure of signification that can be apprehended and analysed independently of actual life processes, that is apart from organic, psychic, historical, and social developments (p. 147).

Using this approach might enable the researcher to fulfil the purposes of reflexivity, but this reflexivity remains at the level of understanding and insight. This does not achieve the critical reflection described in chapter 3, where the aim is to set a social goal where some form of action can be taken. Working from a critical theory perspective the researcher could have chosen a more appropriate methodology that "addresses the subjects of enquiry as equal reflective participants, as knowledgeable social agents … by appeal to increasing [their] reflective knowledge" (Bohman, 1999, p. 79). An interviewee expressed this need by questioning my position (as expert voice) and requesting feedback about how I dealt with the information that he gave me. One of the outcomes of this study could therefore be to provide academics that construct under-graduate research courses with the knowledge and insights gained here, so that they

[3] See also Bradley (1998).

can "see their circumstances differently, indeed to a point where they can see that change of some sort or another is practically necessary" (Bohman, 1999, p. 80). The manner of validating the themes that were generated, namely, checking them with the interviewees so that they could make comments, could initiate this process of self-reflection. The publication of the research findings in academic journals and participation at national and international conferences could further this aim.

The difficulties inherent in achieving a fit between theory and method were also influenced by another pragmatic factor, namely, doing what was practically possible under the circumstances. The individuals who were interviewed sacrificed a few hours of their time and the researcher did not feel comfortable demanding more from them. The ideal would have been to explain the aims of the study to the participants and involve them as co-researchers. This would have entailed a lengthy, complicated process and dedication to the study by all members that might not have been possible. This ideal could be better achieved by involving individuals in a later research project that is co-owned on a larger-scale and addresses more needs, in other words, a study which is not driven by one researcher for the purposes of attaining a qualification. As the aim of this study was to understand, describe and explain the phenomenon, the researcher feels justified in the methods that she used. Further research projects that could use a design more suited to critical social enquiry will be expanded on in section 6.10.2.

6.9 Limitations of the research

The discussion of the limitations of the research is centred on the type of participants that agreed to be interviewed during phase two of the study. It is argued firstly that social and political factors had an influence on the limited participation of HBUs in that these institutions are far removed from the researcher in terms of both relationships and physical locations. Secondly, the research design did not take these issues into account.

6.9.1 Lack of participation by HBUs

One of the glaring limitations of this study is the lack of participation by persons at HBUs. Although a concerted effort was made to incorporate HBUs, as specified in the sampling criteria in chapter 4, only one such institution was included. It is the researcher's opinion that one of the reasons for the non-participation is the consequence of the Apartheid policy of separate development. Although the researcher studied at the time that Apartheid was being brought to an end, there were no structures to encourage the forming of relationships with students at HBUs. Interaction between HWUs and HBUs was not even promoted in the mid to late 1990s when the researcher became a full-time academic. This is, however, not only limited to HBUs, but can be generalised to other tertiary institutions, especially those that have used English as the language of instruction. It is indicative of the insular nature of Afrikaans-speaking universities as the bastions of Apartheid policies of tertiary education. As a junior academic the researcher could not tap into relationships formed with other institutions by senior colleagues and was

thus left to her own devices. Forming any kind of relationship takes time, effort and regular contact, which the researcher was not able to do during the process of this study.

The Tothill and Crothers (1997) report also stated a low response rate from HBUs. The researchers advised that "Historically White Universities should not be seen as the yardstick against which research methodology training should be measured" (Tothill & Crother, 1997, p. vi). Perhaps the individuals contacted at HBUs feared that the researcher would uncover the limitations of their courses and use this information to discredit them in some way. These academics may also be resistant to participating in these kinds of studies that tap their knowledge, but might do little to change the *status quo* at their institution.

6.9.2 Limitations of the research design

The situation that HBUs were virtually non-existent as participants in this study could also have been due to the design of the research. As described in chapter 4, potential interviewees were contacted in two ways: telephonically for the purposes of a face-to-face interview and telephonically or via e-mail for the purposes of an electronic interview. This design was determined by the geographical location of the institution. Due to the Apartheid era's Group Areas Act that segregated population groups according to racial characteristics and located non-white individuals in remote places, tertiary institutions that are categorised as historically black are not within easy physical reach. The researcher thus had to communicate via e-mail or telephone with the majority of HBUs contacted for participation in this study. It could therefore be argued that as most of the academics at these institutions do not have a professional or personal relationship with the researcher and could maintain a certain degree of distance from the researcher because of the medium of communication, the extent of participation was low. The research design was thus inherently flawed, as it did not take the specific South African context into consideration. The researcher could perhaps have made more of an effort to build prior relationships with academics in the social sciences at other institutions, she could have and/or physically travelled to the institution to conduct face-to-face interviews. This insight may contribute to the methodological body of knowledge about using e-interviews in practice.

6.10 Suggestions

As Leedy and Ormrod (2001) stated: "Research begets more research" (p. 8). In the sections that follow suggestions are made for research in two ways. Firstly, in the researcher's opinion, there are three more aspects concerning the topic of under-graduate research methodology courses that could be explored. These include the way in which research methodology is taught, teaching that innovates current practices in the classroom, and comparisons with international trends in curriculum and teaching. Secondly, this section explores possible research projects that could stem from this study.

6.10.1 Suggestions for future research

6.10.1.1 The content of research methodology courses

Firstly, future research on the topic of under-graduate research courses at tertiary institutions in South Africa could focus on the initial idea for this study mentioned in chapter one, namely, issues surrounding how we teach research methodology. Although it is not the aim of this study to address these issues some thought on this topic is given below relating mainly to the level of learning in which students are engaged.

Students in research methodology courses may begin, after introductory topics have been dealt with, to learn about one research technique within a method that can be used to collect data, for example, self-administered questionnaires as part of survey designs. Students use the information they have available, for example, how to construct a self-administered questionnaire, and may implement this technique in the field. The fact that this technique can only be used to answer certain research questions has no bearing on the students' future behaviour. So "[w]hen the problem returns at a later time, he [or she] will *correctly* go through the same computations and reach the same decision" (Bateson, 1972, p. 286) because the students have only one technique available to use.

As students move to the next year of their studies, they are exposed to more research techniques, for example, instead of having knowledge of only questionnaire design, students also learn about structured (face-to-face) interviewing. These two techniques are still located in one method (survey research), but allow the student a wider choice. The transition can be framed as a mere deepening of complexity in the content of the work that students are exposed to. The stage, however, that students reach where they are able to enter into critical debate about the politics of knowledge cannot be achieved solely by presenting students with activities that involve rote learning, that is, memorising something in order to repeat it at a later stage instead of learning to understanding it. In this case the context in which learning takes place needs to change. Bateson (1979, p. 27) says "that all communication necessitates context, that without context, there is no meaning, and that contexts confer meaning because there is classification of contexts".

What is essentially being argued is that there are two very different types of knowledge transition in the learning process. The first type is quantitative where students acquire more knowledge about research methodology as they progress through their qualification. Quantitative knowledge is easy to determine: the more knowledge students have, the higher the marks they are awarded on assessment. The second type of learning is qualitative and more difficult to define. It can only be assessed in a real-life situation to see whether students can apply the knowledge they have gained in a way that best serves the context. What 'best serves the context' is also perspectival, however, and therefore difficult to evaluate. It is not 'what' the student has done and how successful it is that is important, but 'how' and 'why' the student made certain choices. Allowing for a plurality of theoretical and methodological approaches also allows us to reflect the diversity of cultures in a society and creates an environment for innovative developments when research is implemented in practice (Seel, 2000).

This argument returns us to the debate (discussed in chapter 4) on deciding between research approaches based on pragmatism or epistemological ideals. If Lincoln's (1990) postulation about creating a schizophrenic mindset in students through plural training is true, then the majority of under-graduate research courses in South Africa are problematic. More recent research (see Tashakkori & Teddlie, 2003), however, points to the role of practice and the influence that real-life issues have on determining what students should be taught in a methodology course. As this study has argued that under-graduate courses serve the vested interests of lecturers, the interplay between practice and academia needs to be investigated further.

6.10.1.2 Innovative teaching practice

Future research could concentrate on identifying and assessing whether innovative teaching practices improve the outcomes of a methodology course. The design of such a project could involve classroom observations, for example, or could require academics to do research about their teaching. Dunn (2000), for example, required her students to choose a topic in the research course that affected them in some way and to write letters to fellow students about the topic. She found that this greatly enhanced the students' ability to understand complex material. Bradley (1998) has also described some radical pedagogies that he uses in psychology classes that could be adapted for research methodology lectures. His aim in introducing theatre into the classroom is to personalise or subjectify the experiences that students have, to eliminate the subject-object dichotomy, and to demonstrate that our behaviour also mirrors the social context in which we exist. Bradley (1998) portrayed this type of knowledge as "a process of learning together rather than one-way teaching. *It assumes that there is as much likelihood of the audience knowing the answers as the performers*" (p. 87). This addresses the need for a democratisation of the curriculum as required in outcomes-based and post-Fordist education.

6.10.1.3 Comparative research

Future research on the topic of under-graduate research curricula could include some comparisons to other countries along the lines of the attempts by Van Staden and Visser (1990, 1992). In the same vein that courses at HWUs should not be used as a yardstick to measure HBUs (Tothill & Crothers, 1997), international practice should not necessarily be seen as the ideal towards which South African education should strive. Nonetheless, it may be useful to examine how other tertiary institutions structure their under-graduate research courses as academic societies older than South African ones have had more experience in terms of time to implement curricula and assess their value. Benson and Blackman (2003), for example, restructured their research methods course at the Southampton Business School in the UK through a developmental and experiential programme with the aim of reviving students' interest in the subject. Lessons that are learnt by other academics in curriculum redesign could inform our attempts to do the same.

An added benefit would be that social science research curricula at tertiary institutions would be marketable to the international community. With the advent of globalisation many students are moving between institutions on a global scale. Developing courses that are similar to international practice would

allow for a smooth integration of these students into learning programmes. The need to solve local problems should not, however, be forgotten.

6.10.2 Suggestions for research projects emanating from this study

The suggestions that are made below arise from imperatives in the literature on higher education and research methodology teaching to revise our practices as academics in the way that we construct our curricula. Central to this is the belief that the kind of knowledge and the way in which we teach it needs to be legitimated in a broader arena and not only amongst ourselves (Barnett, 1997; McNair, 1997). A new model for achieving this purpose is proposed by Brew (2003) who remarked that

> [i]n an academic community of practice, students, academics, professionals and indeed anyone else who shares this site of practice, are responsible for the maintenance of the community of practice for inducting newcomers into it, for carrying on the tradition of the past and carrying the community forward to the future. Persons (students and staff) engage in legitimate peripheral participation in such communities of practice (p. 12).

This may sound like the type of post-modern university and mode 2 research and teaching model that is described and criticised by Muller (2000) and Robins and Webster (1999). It should rather be viewed as the type of university that Habermas would advocate, where there is open dialogue amongst different parties and the best argument is accepted as the consensus viewpoint: "[t]he social norms of such an institution would not be those of mutually hostile isolationism but those of an open, self-reflective and innovative community, whose members share these values" (Blake, 1997, p. 163). Logistically this pathway may seem daunting as one would need formal structures to ensure that enough time and space is provided for people to air their views. Brew (2003) concurred that this is a great challenge and that higher education has to be radically transformed to achieve this; however, she made some practical suggestions about how one may go about this. For example, graduate students could present some lectures, students could be rewarded by peers for their research work such as publishing articles in a student journal, and electronic formats for debates and conferences between students could be initiated. According to Brew, this also means that academics need to share power and be open to the challenges that they face such as negotiating what is accepted as knowledge and involving students in their research projects. Four ideas for carrying this concept over to the findings of this study are presented below.

6.10.2.1 Involving students in curriculum design

The discussion so far has only speculated in places about the reasons for the negative attitudes held by students towards research methodology courses. It is therefore suggested that a comprehensive study be planned and carried out to investigate students' attitudes and the basis thereof. A qualitative methodology using techniques such as interviews and focus groups would be ideally suited to uncovering the meaning that students attach to social science research courses. The findings of the study that Tothill and Crothers (1997) undertook highlight the need for such research:

> Academics surveyed frequently pointed to the need to train students to be critical and reflective consumers of *research*; being assisted to become reflective consumers of their own education and training may be seen as an important element of this process (p. 17).

Students who are currently registered for an under-graduate research methodology course would thus be targeted for insight into how they would like the curriculum to be structured. Most of the academics interviewed pointed to the essential role that experience played in the way they constructed their courses. It could thus be argued that students may need some degree of involvement in real-life research projects in order to contribute meaningfully to curriculum development. Once again, the researcher comes to the same conclusion as Tothill and Crothers (1997, p. 17): "… post graduation follow up would be a useful way of gauging student perceptions of the adequacy of their … research training, and could also shed some light on employers' requirements". This is an empowerment strategy that will hopefully transform the oppressive interactions between lecturers and students. Determining the type of skills that graduates need and use in their daily work activities can be complemented by the views that employers hold. A discussion of this aspect follows in section 6.10.2.3.

The methodology for revealing graduates' needs should involve data gathering on a large-scale in order to make generalisations possible. Applying the findings from a representative sample to a larger population will benefit all students. This implies a quantitative design and specifically a survey using a self-administered questionnaire distributed through the post. Permission from the universities involved can be applied for to use the contact details that students provide to administration. The sample should limit itself to students who have completed their studies within one to three years so that efforts are not wasted due to changes in postal addresses. In keeping with the fit between the epistemology and methodology reasoned in this study, a second phase, in the form of a qualitative component, could be added by asking respondents whether they would be willing to participate in focus groups or be interviewed at a later stage. Participants in this phase could be selected and divided into groups according to type of employment to add a sectoral dimension to the results. Comparisons can be made between sectors to determine whether there are generic components to research skills in the workplace or whether different settings require different skills. These findings can be used to inform the content of the curriculum as well as the level of practical application graduates are expected to attain.

6.10.2.2 Involving academics as agents of curriculum design

Bohman (1999) emphasised that "[t]he goal of critical enquiry is not to control social processes or even to influence the sorts of decisions that agents might make in any determinate sort of way" (p. 79). Habermas (1974) envisioned critical enquiry as a route to self-contemplation. According to Habermas (1971, p. 90) "In self-reflection, knowledge for the sake of knowledge comes to coincide with the interest in autonomy and responsibility (*Mundigkeit*). For the pursuit of reflection knows itself as a moment of emancipation".

Such a process would promote the full development of human potential by bringing people to self-awareness of their role in society and how communication between them is actually or potentially

distorted. Hopefully this study will be useful in initiating some self-reflection amongst academics about the design of their under-graduate research methodology courses. Moreover, further studies can be conducted to involve academics as the 'equal reflective participants' described by Bohman earlier in this chapter. Such research would involve the researcher as an equal partner in the process or, put another way, perhaps the co-constructor that Kvale (1996) described.

6.10.2.3 Involving business and other role-players in curriculum design

More than a decade ago Hoshmand and Polkinghorne (1992) argued that "the knowledge base of the profession [psychology] should be derived with diverse methods and from multiple sources, including the knowledge of practice" (p. 56). It would probably be useful to juxtapose the views of employees with those of employers and other role-players regarding the types of research skills needed in the workplace. For example, Smith and Dexter (2001) contribute seven pillars for a curriculum for market researchers that is relevant to the 21st century and based on the environment that graduates will be practising in. These pillars are radically different to the usual core curriculum of such courses as they reflect the changing world of information and knowledge management. To be effective in this new world, researchers will have to be skilled in discerning, amongst the masses of information, which information is valuable to their needs. This means that in practice research is becoming an exercise in information management that the current curriculum does not adequately address (Smith & Dexter, 2001). Given that societies are being profoundly affected by globalisation and that higher education often has to react to the economic imperatives that drive this era, graduates will need specific skills in order to cope. Business becomes a pivotal stakeholder in determining the relevance of the curriculum, a characteristic of mode 2 knowledge. This should be seen in the light of the holistic community of practice discussed above.

6.10.2.4 Disseminating information to authors through publishers

Although the topics in the content lists of the prescribed texts was used as a basis for researching the content of research methodology courses in phase 1 of this study, no attempt was made to further examine the material. One of the questions that was not dealt with in this study is: to what extent does the content of research methodology texts dictate the content of a course? This enquiry is based on the assumption that textbooks reflect the topics that, in the author's viewpoint, should be dealt with in a research course. Although some editors send preliminary work to peer reviewers such as lecturers, this once again limits the design of the curriculum to specific interest groups. It seems that most of the lecturers interviewed preferred to prescribe more than one source, or to write their own material. The conclusion that can be drawn is that there is no single viewpoint on the knowledge that under-graduate students should have in research methodology. Further detailed research to establish an overlap in viewpoints between lecturers, graduates and business could prove valuable to authors who are planning to write a book for the under-graduate market or to revise their material. According to Smith and Dexter (2001, p. 322) "every profession needs a central core of principles and practices that are debated and discussed in its journal and at its conferences". This could also be applied to textbooks although this could result in another hegemony being placed on academics whose paradigms differ from the majority.

A book based on a widely accepted curriculum may find a larger market and prove more economically viable to the author and publisher.

Even though the process outlined above attempts to secure a more equitable distribution of educational power, Scheurich (1997) warned that unless attention is paid to some principles that will aid in democratising the situation, the powerful will remain the driving force behind curriculum reform. Schumaker's (1990) idea of 'critical pluralism' needs to be applied in this situation. It is pluralistic as it gives different people the authority to make decisions (which is distinct from mere participation in initiatives for change) and it is critical because participants are aware of strong differences in knowledge, power and resources of the various parties involved. Two suggestions for achieving such ideals are: proportional representation of all members on committees that recommend reform, and ensuring that all parties have an equal voice. Practical measures to implement these suggestions include active recruitment of certain groups of people previously excluded from decision-making (in this case probably graduate students), and holding "frank, in-depth discussions of the differences among individuals that make it difficult to share power" where participants are "encouraged to share their own backgrounds and biases and to each make a commitment to respect and consider each other's points of view" (Scheurich, 1997, p. 25). It should also be pointed out to members that power struggles need to be overcome in order to bring about curriculum reform. Furthermore, Scheurich suggested that decisions should not be subjected to reviews by experts or steering committees (although in this case academics will probably make final constructions of the curriculum: this needs to be considered in the process), and that all the principles above should be adhered to throughout the process.

6.11 Contributions of this study

Two major contributions of this study are to the debates on the reconceptualisation of the discipline of psychology, specifically with regard to under-graduate research courses, and to the literature on methodological principles for a critical theoretical research project.

6.11.1 Contribution to the discipline of psychology

It is necessary to conclude this chapter with a note on the contribution of this study to the discipline of psychology as the reader may argue that this aspect has been obscured by the inclusion of other social science disciplines in the sample. Reasons for this inclusion were, however, stated in chapter one. This does not detract from the location of this study in the discipline of psychology as an attempt was made to theorise the results from a psychological perspective. That the researcher felt the need to be inclusive and comfortable with blurring boundaries between disciplines perhaps points to the post-modern direction that universities will be taking in future (see for example Blake, 1997; Mourad, 1997).

As pointed out in earlier chapters, research methodology in the social sciences needs to adapt to the transformations taking place in society and the resultant effects this has on higher education in general (Brew, 2003; Tashakkori & Teddlie, 2003). Besides the political agendas outlined earlier in the chapter, the researcher also attempts to push psychology to the forefront of bringing about changes in academic society. Psychology, however, also needs change from within as this quote from Bradley (1998) illustrates:

> If psychology is to reconstruct its relationship to the reproduction of the present, then psychology needs to change the way it reproduces itself. It needs to create a space for experience in which subjects can become aware of the obstacles that collectively serve to impede their development. No longer can the psychologist be 'the one supposed to know,' imposing knowledge from above. They must find a way of accessing the 'view from below'. Which means they must find a way of undoing the hegemony of the sublime, in pedagogy as well as research (p. 87).

This study could hopefully point to one path that could be followed to bring about a better curriculum for students. Some warnings should, however, be heeded. There is the danger, as Muller (2000) pointed out, that a critical analysis could result in promising too much and not being able to deliver on these promises. As Muller explained a researcher cannot deliver a critical perspective and expect the world to change on the strength of these 'new insights'. People are not always open to change for a variety of reasons, such as feeling content with their current viewpoints and actions or not wanting to admit to 'uncomfortable realities', as Muller puts it. Initiatives for change could thus meet with resistance. This study could therefore be rejected on the basis that academics do not want to be confronted with their problematic notions of how knowledge should be constructed (because of the specific way in which they develop curricula). Nevertheless, psychologists at universities in South Africa should take cognisance of the fact that methodological debates in the social sciences and current thinking about knowledge and learning are pointing to new directions in how we should train students to study the human realm. If we want to remain relevant to the social world in which we live we need to discuss these directions and forge a new way of acting in this world.

6.11.2 Methodological contribution

Lakomski (1987), Scheurich (1997) and Willower (1985) have criticised researchers working within a critical theory approach for their lack of material based on research activities within the context they are examining. Reasons for critical theory's avoidance of empirical material were briefly mentioned in chapter 4. According to Scheurich, this *modus operandi* tends to dilute and undermine the efforts of researchers to analyse the situations they are interested in, as there may be difficulties relating the theoretical background on which the researchers base their evaluation to the practices that take place in everyday circumstances. Scheurich then highlighted the importance of grounding research on a concrete application of critical theory in relating it to the practices that take place in relationships where power is distributed unequally.

Chapter 3 discussed various methods for conducting this type of research from a critical theoretical paradigm. Arguments about the methodological basis of critical theory were also examined. As there are variants of critical theory and more current reconceptualisations of its tenets, this study attempts to contribute one methodological path that may be followed by a criticalist researcher. This is based on epistemological ideals and pragmatic considerations of the aim of the research and not on an *a priori* rejection of methodologies because of the epistemological foundations that they represent. A critical realist ontology remains the focus point of this type of research with the researcher interpreting different perspectives of the universe that people share and setting them in a wider social, political and economic context. A fusing of hermeneutics with a critical approach allows the researcher to comment on events at a higher level (triple hermeneutic) than mere understanding and interpretation (double hermeneutic).

6.12 Conclusion

The aim of this last chapter was to integrate the information contained in previous chapters with the findings of the research. This was accomplished by comparing the results of phases one and two with applicable literature and attempting to find a theoretical explanation for the findings. Theoretical notions of the curriculum as a dialogical activity, the researcher as expert and the expert teacher, social disregard, normal and abnormal dialogues and the effects of current higher education policy on the curriculum were explored. Aspects of the content of the courses were examined, specifically the qualitative-quantitative divide being bridged with mixed methods courses. On the surface it seems as if the uneasy relationship between the two approaches has been mended, but detailed examination shows that more emphasis is still placed on quantitative research. It could be argued that presenting a mixed methods course is a new hegemony that is following the trend to train students for the workplace, as research practice demands researchers who are versatile in both approaches. It is more likely, however, based on the findings of this study, that this development is due to constructors of research courses making distinctions on methodological instead of epistemological and pragmatic levels. One alternative to the current way of constructing curricula is proposed within a framework of communities of practice. A community consisting of students, business, academics and authors of textbooks aimed at under-graduate research courses is a more ideal way of approaching this activity. Certain limitations are evident, however, specifically in the research design and the lack of participation by HBUs. The researcher reflected on other issues such as the positioning of research methodology in the discipline of psychology, the lack of participation by some respondents, the political dimension of the research and the methodology used in the study. Future research could also focus on the content of research courses, innovative teaching practice and comparative studies.

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