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-

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[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.

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[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-

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[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

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[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
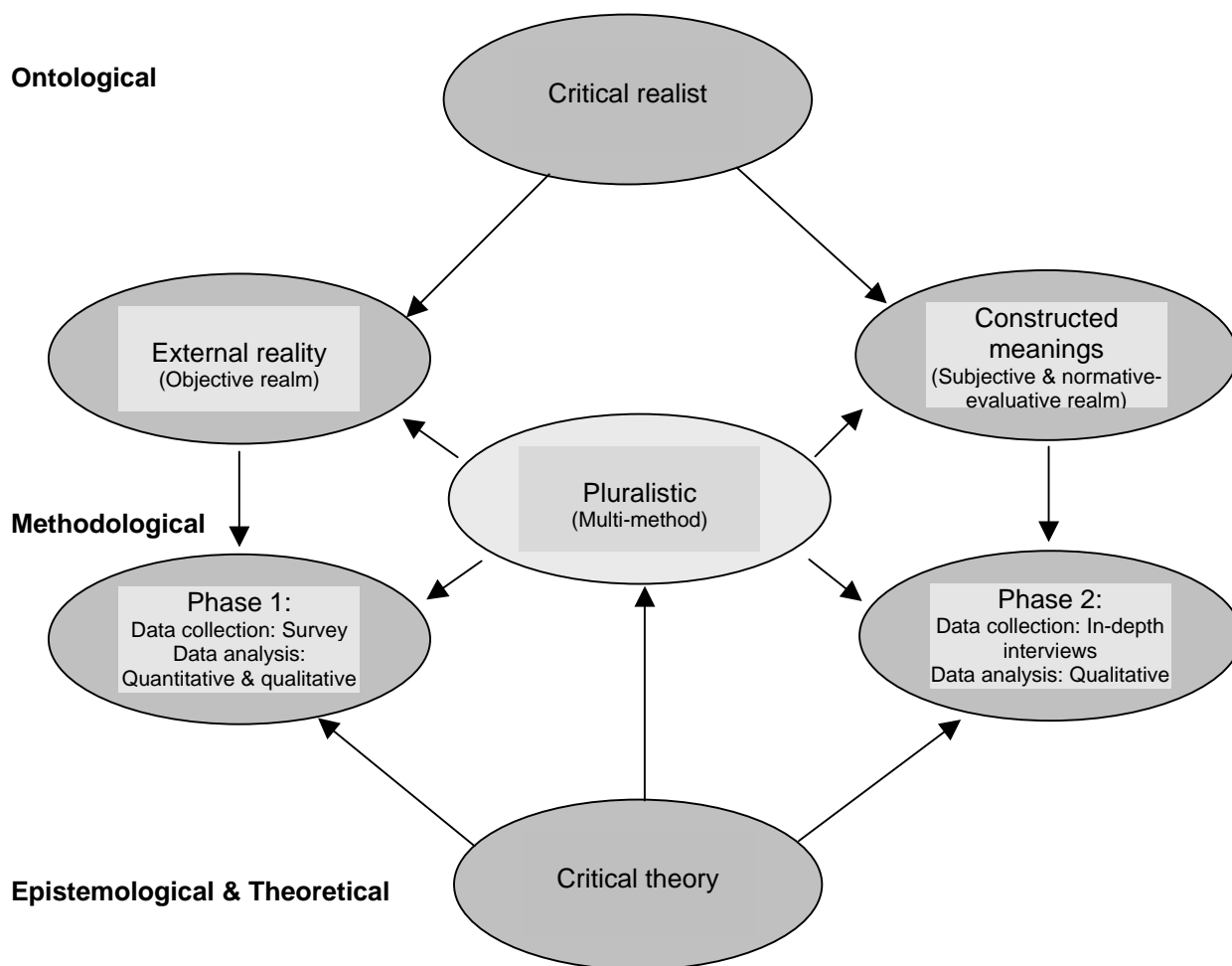
Figure 8 Levels of the research process

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

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[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.
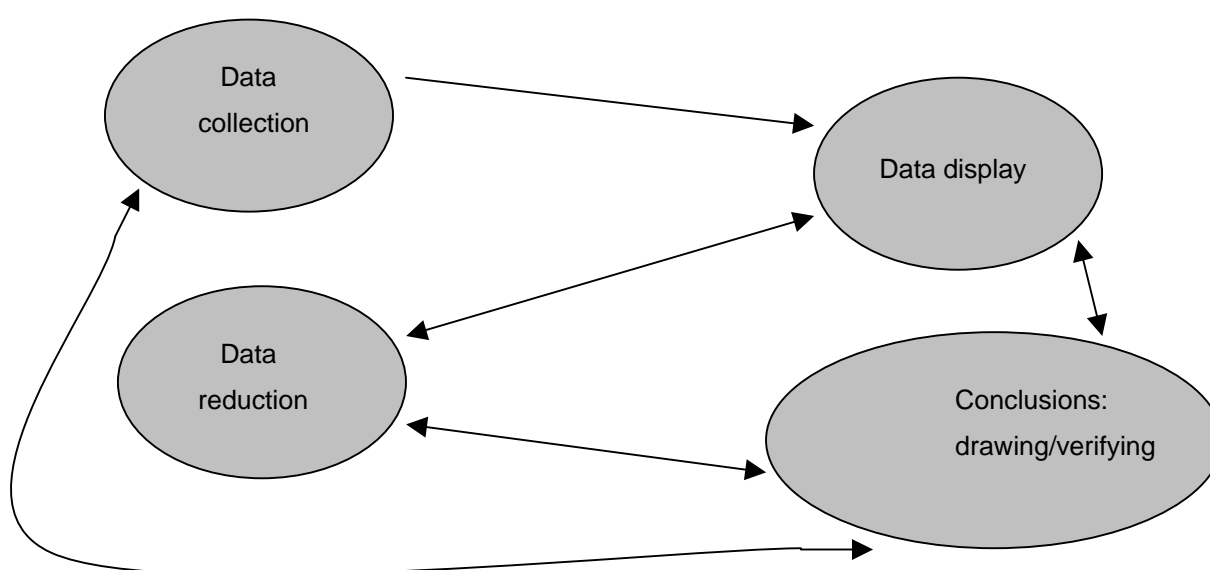

Figure 9 Components of data analysis: interactive model (Huberman & Miles, 1994)

▪ *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.

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[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:
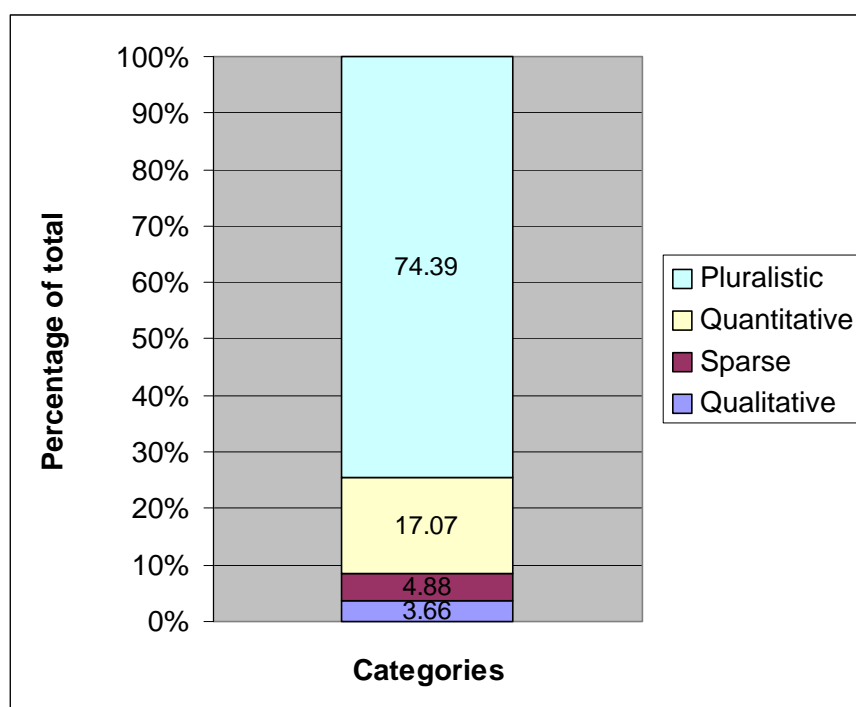

Figure 10 Percentage of the total number of courses held by each category

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.

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[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

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[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.

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[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

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[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:

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[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.
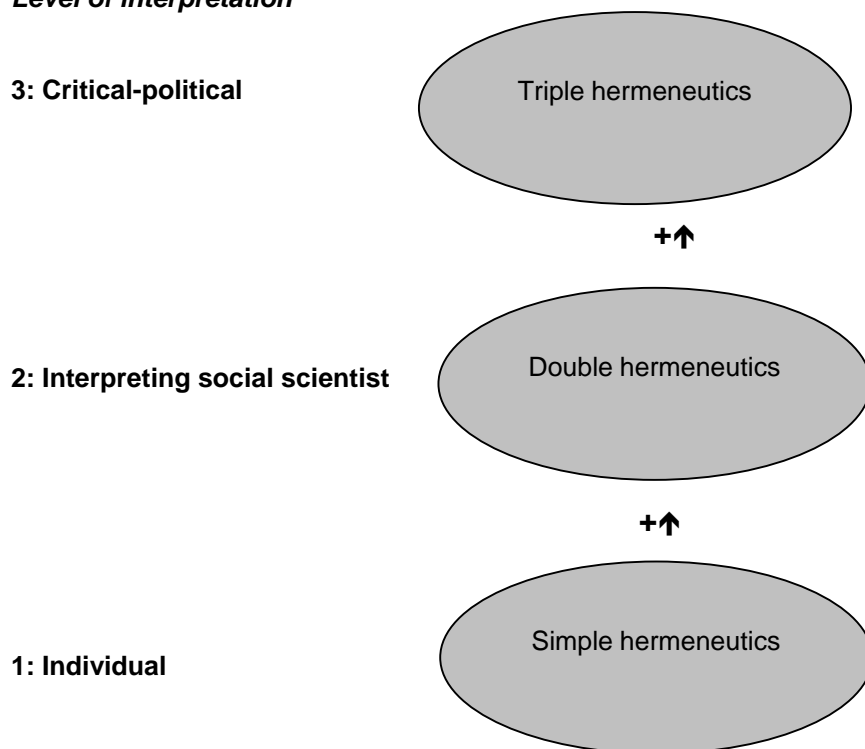
Level of interpretation

3: Critical-political

Triple hermeneutics

+↑

2: Interpreting social scientist

Double hermeneutics

+↑

1: Individual

Simple hermeneutics

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

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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.

<u>Almal het dieselfde denkrigting wat dit aanbetref gehad want ons het besluit</u> *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

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[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.