



# CHAPTER 5

## CHAPTER 5

### QUANTITATIVE AND QUALITATIVE METHODS

#### 5.1 INTRODUCTION

The purpose of this chapter is to craft the road map to be used in addressing the research problem in this study. The research problem statement, put succinctly is '*how do transformed institutional structures of governance influence quality assurance mechanisms in higher education in this country*'. This problem is triggered by the state of flux in which institutions of higher learning find themselves as a result of the transformation agenda of the state and all its organs.

This chapter describes the research design, that is, the plan for carrying out the study. It provides a detailed discussion of the research methodologies used in this study, the appropriateness of the selected research methods in terms of the nature, specific research problem and the aims of this study. Furthermore, it emphasises the complementarity of the quantitative and the qualitative research methods for this particular study. Quantitative techniques in this study are used to broadly assess and analyse the specific governance structures at institutional level and examine how they influence quality assurance arrangements in higher education. The historical classifications of institutions, as outlined in Chapters 1 and 6 are used to explore possible trends in relation to quality assurance.

Qualitative techniques are employed to gain greater in-depth insight into the complexities of the issues and possible contextual tensions. Using a combination of both quantitative and qualitative methods enhances the validity of the study and these approaches to educational research should be seen as

complementary to the broader social discourse of educational research (Waghid, 2000:25). This use of different methods of gathering data with different samples, at different times, or in different places – to compare different approaches to the same thing (McMillan, 2000:272) is termed triangulation. This approach is used in this study by triangulating the questionnaire responses with the interview responses in an attempt to identify clear patterns. This chapter illustrates, through discussion, diagrams and tables, the approaches between these equally important methodologies and how each serves as complementary pillars in this study.

## **5.2 RESEARCH PARADIGM**

The main thrust of this study is on the South African higher education transformation agenda and how it impacts on institutional quality imperatives. The research question aims to address whether the transformed institutional governance structures have any influence on quality assurance mechanisms, and if so, to what extent given the context of the historical backgrounds of institutions of higher learning? Structures that are looked at are the governing Councils, Senates and the Institutional Forums.

The quality focus that is investigated in relation to these structures, has to do with the notions of quality as outlined in Chapter 3, as well as the quality management systems that may be applicable in higher education such as the Total Quality Management and elements of the conformance to standards (specifications) models.

This research paradigm entails the historical classifications of institutions (Cloete & Bunting, 2000:56), namely, the Emerging-Stable HEIs, the Uncertain-Unstable HEIs, the Entrepreneurial-Expanding HEIs, and the Traditional-Elite HEIs. This classification helps to identify institutions that have some attributes relating to

quality assurance and management systems. This classification emanates from the broader one commonly used, namely Historically Advantaged Institutions (HAIs) and the Historically Disadvantaged Institutions (HDIs) in the South African context. Although the HDI-HAI classification alone is valid in the interpretation of the data in this study, it is necessary to examine the institutional responses looking at attributes that are not necessarily racial, but in line with institutional purposes and other dynamics that inform the post-apartheid South Africa. The classifications by Cloete and Bunting above, attempt to make a breakthrough in higher education research in South Africa.

### **5.3 RESEARCH STRATEGY**

The two main research instruments employed in this study are a questionnaire, used primarily to collect quantitative data and individual face-to-face semi-structured interviews, used to obtain qualitative data, to validate, supplement and provide explanations for some of the findings of the quantitative analysis. Employment of these two data collection strategies are aimed to yield:

- (i) greater insight into institutional approaches to quality, institutional impressions on the dimensions of accountability and improvement as they relate to quality assurance processes, institutional missions and strategy, efficiency and effectiveness within some international perspectives on quality
- (ii) a deeper understanding of the institutional dynamics that influence the quality perspectives in a manner that considers internal and external environmental forces that impact on the implementation of QA mechanisms

There are fundamental differences in using quantitative and qualitative methods of data collection and analyses and this has resulted in an on-going debate in the literature about the extent to which the characteristics of one paradigm can be utilized in the other (Smith and Heshusius, 1986; Kidder and Fine, 1987; Firestone, 1987; Gage, 1989; Reichardt and Rallis, 1994).

By way of a summary, Table 5.1 displays a comparison of these characteristics of qualitative research with the more familiar positivist-quantitative approach. Such a comparison helps to illustrate the value of combining both quantitative and qualitative approaches in this study, in order to increase the validity of the findings. In the actual conduct of this research study, differences on several points of comparison are far less rigid than the table suggests.

**Table 5.1 Characteristics of Qualitative and Quantitative Research.**

Point of Comparison	Qualitative Research	Quantitative Research
Focus of research	Quality (nature, essence)	Quantity (how much, how many)
Philosophical roots	Phenomenology, symbolic interactionism	Positivism, logical empiricism
Associated phrases	Fieldwork, ethnographic, naturalistic, grounded, constructivist	Experimental, empirical, statistical
Goal of investigation	Understanding, description, discovery, meaning, hypothesis generating	Prediction, control, description, confirmation, hypothesis testing
Design characteristics	Flexible, evolving, emergent	Predetermined, structured
Data collection	Researcher as primary instrument, interviews, observations, documents	Inanimate instruments (scales, tests, surveys, questionnaires, computers)
Mode of analysis	Inductive (by researcher)	Deductive (by statistical methods)
Findings	Comprehensive, holistic, expansive, richly descriptive	Precise, numerical

**Merriam, 1998:9**

Broad consultations with Vice Chancellors of South African universities and technikons were initiated by the researcher. Subsequent to telephonic discussions, a more formal letter was sent to all Vice Chancellors of HEIs to explain the purpose of the study and how assistance was sought from their

institutions towards the completion of questionnaires and possible follow-up interviews with some of them. An example of the correspondence entered into between the researcher and the institutions is attached as Appendix A. This approach is informed by the purpose of the study (Dixon, 1989:13), which is to determine the extent to which the transformed institutional governance structures are influencing the quality assurance imperatives in their institutions.

An empirical investigation into the institutional approaches to quality in the light of the legislative framework in South Africa was conducted, by using a questionnaire (Appendix B) to collect the data (Borg & Gall, 1989:418). This was followed by in-depth semi-structured interviews conducted with a representative group of respondents from HEIs. The discussions were informed by the interview protocol and a central question (see Appendix C), aimed at following on the institutional responses to the questionnaire.

The processes used in the planning, organisation, implementation and analysis of data, derived from both the quantitative and qualitative methods employed, are described in full in the following paragraphs.

## **5.4 QUANTITATIVE DATA COLLECTION**

In quantitative research, a major distinction is made between non-experimental and experimental designs. This study may be classified as non-experimental research, in that the investigator has no direct influence on what has been selected for study, either because it has already occurred or because it cannot be influenced (McMillan, 2000: 9). For example, in this study, the researcher has no influence on how institutions transformed their governance structures within the framework described in Chapter 2, section 2.6. or how these structures are influencing the QA mechanisms in the institutions. This characteristic has important implications for the conclusions that are drawn, as it usually means that

the study can only describe something or uncover relationships between two or more factors. A non-experimental research design facilitates the simultaneous and effective collection of a wide range of data that describes, compares or correlates relationships in the study (McMillan, 2000: 9; Gay, 1997: 10-11).

In this study, a questionnaire (see Appendix B) is used as the research instrument for the collection of primarily quantitative data and to a limited extent, some qualitative data. It is necessary to examine the use of a questionnaire in terms of the aims of this study, consider both its merits and demerits, describe its construction, its administration and the method used to analyse the data obtained from the questionnaires.

#### **5.4.1 THE PURPOSE OF THE QUESTIONNAIRE**

- (i) to collect and interpret the perspectives of a selected group of respondents from universities and technikons in South Africa with supposed expert knowledge of the transformation of governance structures and how it impacts on their institutional quality management systems.
- (ii) To gather information on institutional approaches to quality in order to make an original contribution to the on-going discourse on quality assurance in higher education.

To this end, data/information collected from the questionnaires is used to shed light on how institutions of higher learning in South Africa perceive themselves within the fluid higher education landscape, and how they approach the varied dimensions of quality at an institutional level.

- (iii) to stimulate and promote critical thinking and debate on issues of accountability and improvement in the area of quality assurance.



In response thereto, the extent and importance of different items/variables are compared by means of statistical analyses, followed by interviews with a smaller representative group from HEIs with the purpose of stimulating critical thinking and debate on issues of quality assurance in higher education.

- (iv) To provide a framework for institutions for building capacity within governance structures through raising their levels of awareness in relation to their fiduciary duties in tandem with the continuous improvement of quality in the academic functions of institutions.

This study is an attempt to glean pertinent information that will support governing structures in bringing about the business of quality assurance in HEIs, and also demonstrating that specialised knowledge is required in order to facilitate good practice at higher (governance) level. It is envisaged that this purpose will build capacity within governance structures during the process of transformation, and beyond.

#### **5.4.2 ADVANTAGES AND DISADVANTAGES OF USING A QUESTIONNAIRE**

The benefits of using a questionnaire far outweigh its limitations, particularly in terms of the specific purposes of this study. According to Wiersma (1985: 146), a questionnaire is still commonly used as a strategy for data collection. What is required is the careful construction of the questionnaire in order to elicit favourable responses (cf. 5.4.4.2)

According to Schnetler (1989: 44), a well-designed questionnaire boosts the reliability and validity of the data to acceptable levels of tolerance. To overcome the difficulty of poorly - constructed questionnaires, Van Dalen (1979: 156) contends that items should deal with meaningful research problems, be

structured carefully and be administered effectively to qualified respondents. This advise was followed as described in section 5.4.4.1 below.

#### **5.4.2.1 ADVANTAGES OF A QUESTIONNAIRE**

According to Dixon (1989: 19), using a questionnaire has some of the following advantages:

- Low unit costs that relate to subsistence and travel are minimal and thus become a plus factor in the employment of this tool.
- Since questionnaires are identical, the stimuli provided become identical in outlook, thereby bringing about homogeneity.
- It becomes easy to kill the distance by reaching respondents from all parts of the country.
- There is anonymity of the respondents since the names are not mentioned. In this study not even the names of the universities and technikons are mentioned in order to strengthen the validity of the responses.
- Large quantities of information could be received from respondents within a short space of time.
- Questionnaires are carefully structured and pre-coded for easy processing. Open-ended questions are kept to a minimum, as it has been the case in this study. A follow-up to these questions were largely captured in the interviews.

#### **5.4.2.2 DISADVANTAGES OF QUESTIONNAIRES**

Although there are merits for using this method of data collection, there are demerits that ought not to be overlooked as Dixon (1989: 22) indicated:

- The high non-response rates are quite common thereby posing problems of representation.
- The attitude of some respondents could be negative to the extent that they may not respond or brush through the questionnaire without providing honest responses.

- Additionally, the impersonal nature of the instrument could frustrate respondents.

### **5.4.3 QUESTIONNAIRE CONSTRUCTION (APPENDIX B)**

In line with Van Dalen's (1979: 156) contention that "items should deal with meaningful research problems, be structured carefully, and be administered effectively to qualified respondents", attention was given to ensuring that the items in the questionnaire were constructed to enhance both the internal and external validity of the study.

The researcher, through interaction with role-players and stakeholders in higher education, such as the DoE, SAUVCA, and other forums, identified key issues relating to governance and quality. The centrality of these issues was confirmed through discussions with some of the quality assurance managers of HEIs and a questionnaire was designed around institutional governance and quality assurance imperatives.

#### **5.4.3.1 STRUCTURE OF THE QUESTIONNAIRE**

The questionnaire provides background perspectives on higher education transformation and quality assurance as competing priorities. It also identified the purposes as outlined in section 5.4.1 above and provided the research paradigm for the study.

The questionnaire was divided into 3 sections, A, B and C.

**Section A** of the questionnaire concerned the legislative imperatives (transformation), institutional governance and approaches to quality. It comprised optional responses and some items were open-ended questions, aimed at providing explanations for the choices made in respective items.

**Section B** related to accountability and improvement dimensions in the following categories:

- QA processes at institutional governance structure levels
- Institutional mission and strategy
- Efficiency and Effectiveness
- International perspectives on quality, and
- Total Quality Management

In Section B, respondents were asked to denote the extent and importance of these items in the institution on a 4-point Likert scale. This structure was considered necessary from the initial discussions held with institutional quality assurance managers in identifying the critical issues regarding governance and quality assurance in the transformational context in higher education. From these discussions, emerged the conclusion that in many instances there was a discrepancy between what managers felt ought to be done or what was necessary and what actually was being done.

The theme of **Section C** was the institutional dynamics that influence the quality perspectives. This was sub-divided into:

- Contextual variables
- National policy imperatives
- Economic considerations, and
- Institutional perspectives

#### **5.4.3.2 RELIABILITY AND VALIDITY**

Formulation of the content of the questionnaire was guided by the initial discussions with senior managers and QA managers to identify the key issues. A draft questionnaire was then distributed to peers involved in institutional management for comment and a sample of individuals, representative of the historical classification were requested to complete the questionnaire and provide

feedback on its construction, content and relevance. The construction of the questionnaire was supported by statisticians who advised on the validity of items for statistical purposes. It is essential to mention that responses in this questionnaire reach statistical significance. These were measures undertaken to increase the external validity of the instrument.

Internal validity was strengthened by including items that verified the responses within sections of the questionnaire.

#### **5.4.4 ADMINISTRATION OF THE QUESTIONNAIRE**

##### **5.4.4.1 COMMUNICATION**

To accommodate the diverse structural arrangements in HEIs in terms of the individuals who possessed a deeper understanding of the relationship between QA and governance in each institution, Vice Chancellors were contacted by the researcher requesting permission to conduct research in their institutions on the topic, ‘ **The Impact of transformed institutional governance structures on QA mechanisms in South African higher education**’.

Included in the request was the identification of suitably qualified senior managers who could objectively assist in the completion of the instrument and be interviewed subsequently. Prompt feedback was given in support of the study by way of letters identifying offices and persons who were knowledgeable on issues of governance and quality in the institutions.

A request was also made that institutional policy documents such as the strategic plans, 'three-year rolling' plans, missions statements and QA policies as far as possible be made available to the researcher in order to facilitate his understanding of the institutional contexts prior to the interviews being conducted. A search was also done on institutional web sites (internet), and

most of the information about institutions was accessed (including mission statements). A limited number of institutions supplied their strategic planning documents, whereas others regard them as 'strictly confidential' documents, and could therefore not supply them. These institutional approaches should be viewed in the context of competition vs co-operation that characterises South African HEIs, as well as the sensitivities surrounding the reconfigurations of HEIs. This document analysis was a further method employed for purposes of triangulation to improve the validity of the study.

Questionnaires were sent out to all 36 HEIs and requested that at least 3 persons who were knowledgeable on the subject of the study and the institutional dynamics around transformation, to complete. Ideally these would include senior managers such as Vice Chancellors, Deputy Vice Chancellors, Deans, Registrars, Institutional Planners and QA Managers. Where possible, members of councils were asked to complete the questionnaire and make themselves available for follow-up interviews.

This approach to specifically select and interview those individuals perceived as having the best understanding of institutional governance, is influenced by the purpose of the study (Dixon, 1989:13), which is to determine the extent to which the transformed institutional governance structures are influencing the quality assurance imperatives in their institutions.

#### **5.4.4.2 QUESTIONNAIRE RESPONSES**

A total number of 108 questionnaires were distributed to 36 higher education institutions in South Africa, either by post or personal delivery in cases where institutions were in close proximity to the researcher. The researcher was later informed by one institution (HAI) that it was unable to participate due to pressing internal demands.

This resulted in the total of 35 HEIs participating in the study with an expected response of 105 questionnaires for analysis. Each institution was requested to complete at least 3 questionnaires for purposes of multiple observations. A further 6 HEIs (comprising 4 HDIs and 2 HAIs) did not return the questionnaires although they consistently expressed their willingness to participate in the study.

A total of 28 HEIs out of 36, representing 78% participated and returned questionnaires. The fact that such a high number of HEIs participated in the study gives an indication of how representative the responses are. A further 6 HEIs (comprising 4 HDIs and 2 HAIs) did not return the questionnaires although they initially expressed their willingness to participate in this study. Completed questionnaires were posted or faxed back to the researcher, and in a few cases were personally collected or delivered.

The total number of responses received in time for processing were 54 out of a possible total of 105. This represented a response rate of 51%. An attempt was made to increase the response rate by contacting respondents personally, telephonically and via the electronic mail, sending reminders for the return of the questionnaires as expected. Factors such as overseas travel, conferences and work loads, were among the reasons why some of the respondents were not able to respond in time.

There was, however, a good spread/balance between technikons and universities, and also in terms of historical classification of institutions, thereby providing a representative view of HEIs on the issues of governance and quality in South Africa. There are 16 HDIs and 19 HAIs in South Africa, with the University of South Africa not strictly falling in either of the categories. It is a dedicated distance learning institution and the third largest in the world.

The following table illustrates how representative the responses were among South African HEIs:

	Universities		Technikons		Total	
	N	%	N	%	N	%
Total Number of HEIs	21		15		36	
Participating HEIs	16	(57%)	12	(43%)	*28	(78%)
Participating HDIs	8	(67%)	4	(33%)	12	(43%)
Participating HAIs	*8	(50%)	8	(50%)	16	(57%)

\* This figure includes the University of South Africa (UNISA)

The portfolios of the respondents were principals, vice principals, deans, registrars, institutional planners, QA managers and to a limited extent institutional forum members. Senior management was represented more than any other category in pursuance of the objective to have knowledgeable persons on the relationship of governance and quality in South African higher education.

#### **5.4.5 DATA ANALYSIS**

As indicated in section 5.4.3.1 above, the questionnaire was subdivided into 3 sections A, B and C for purposes of coherence. Data capturing for all closed items in the questionnaire was electronic, and in the case of the few open-ended questions, qualitative responses were categorised and also statistically analysed to depict possible trends. Each of the sections were analysed as follows:



#### **5.4.5.1 SECTION A**

Items that required optional responses were captured with the choice made by respondents per item, for example, a "Yes" response was captured as 1, and a "No" was captured as 2 within the coding structure extensively discussed with the research support specialists.

The open-ended questions that sought reasons or further clarification of the choices made were read carefully and categorised broadly within the themes that were common in the responses. Each of these responses were listed per number of questionnaire and given numerical codes. These were also captured electronically with the assistance of research support specialists.

After all the data was captured the researcher went through all the print-outs to trace any discrepancies with the codes initially entered by hand, and no mistakes were found. A frequency of responses was then produced from where an analysis and interpretation of the results was done in the context of the research question. This method was done for all the open-ended questions in this section.

#### **5.4.5.2 SECTION B**

This section comprised of the items that were to determine the "Extent" and "Importance" on a 4-point Likert Scale. Responses were manually coded and captured electronically and frequencies and percentages of responses per item were provided for cross checking. The coding structure for optional items that were included by the respondents was also clarified with the assistance of research support.

A combination of items was also done to determine the validity of the responses. As an example, where an institution classified itself in a particular category in Section A, it would be matched against the reasons provided for that particular

choice, and compared with the "Extent" and "Importance" attached to each of the variables in Section B such as QA processes at Council, Senate, etc. The pattern in the responses is discussed in detail in Chapter 6 to illustrate the validity and reliability of the responses given. This approach provided a combination of the responses that could be grouped as 1-2 (low) and 3-4 (high) extent or importance for purposes of interpretation of results.

This method was also followed with institutional 'own choices' of items they considered could be added to the list of items. Statistical interpretation was also done for those that made suggestions.

Statistical tests (Chi-square and / or Fisher's Exact Test) in all these items were performed to determine their significance (Keller & Warrack, 2000: 551- 555). The responses were found to be statistically significant upon application of these two tests.

#### **5.4.5.3 SECTION C**

The analysis of the data in this section was also on the frequency of responses to each of the items that were to establish the institutional dynamics to quality assurance. Responses to the items were descriptive based on the factors that either "inhibited" or "promoted" the implementation of best practice in HEIs.

These responses were also matched against the institutional classifications that were chosen in Section A with the purpose of attempting to address the research question whether the institutional governance structures influence quality assurance mechanisms in South Africa.

## 5.5 QUALITATIVE DATA COLLECTION

Until recently, educational research had been dominated by quantitative methods and designs. Today, a variety of research methods, most notably qualitative approaches are being used (McMillan, 2000: 252; Merriam, 1998: 3). Qualitative research is an umbrella concept covering several forms of inquiry that help us understand and explain the meaning of social phenomena with as little disruption of the natural setting as possible. Other terms often used interchangeably are *naturalistic inquiry*, *interpretive research*, *field study*, *participant observation*, *inductive research*, *case study*, and *ethnography*. There are many different types of qualitative research, displaying different characteristics and aimed at achieving particular objectives, (Tesch, 1990: 58; Lancy, 1993:3; Denzin & Lincoln, 1994: 2; LeCompte & Preissle, 1993: 2-3) as shown by Table 5.2 below:

The purpose of Table 5.2 is to give an overview of all the types of qualitative research methods and how they interface with one another. The characteristics and examples of each of these types of qualitative research methods are briefly outlined in order to develop an understanding of why this approach was also necessary in this study.

The reason for this brief illustration is to locate the context within which this study is done, e.g. the visit to institutions (field work), observations done by the researcher in different institutions across the country, etc. This approach was used in order to have a combination of methods for a successful study, as it is evident in this thesis.

**Table 5.2 Common Types of Qualitative Research in Education.**

Type	Characteristics	Example
Basic or Generic	<ul style="list-style-type: none"> <li>□ Includes description, interpretation, and understanding</li> <li>□ Identifies recurrent patterns in the form of themes or categories</li> <li>□ May delineate a process</li> </ul>	<ul style="list-style-type: none"> <li>□ Meaning-making in transformational learning (Courtenay, Merriam, and Reeves, forthcoming)</li> </ul>
Ethnography	<ul style="list-style-type: none"> <li>□ Focuses on society and culture</li> <li>□ Uncovers and describes beliefs, values, and attitudes that structure behaviour of a group</li> </ul>	<ul style="list-style-type: none"> <li>□ A study of twenty successful Hispanic high school students (Cordeiro and Carspecken, 1993)</li> </ul>
Phenomenology	<ul style="list-style-type: none"> <li>□ Is concerned with essence or basic structure of a phenomenon</li> <li>□ Uses data that are the participant's and the investigator's firsthand experience of the phenomenon</li> </ul>	<ul style="list-style-type: none"> <li>□ The role of intuition in reflective practice (Mott, 1994)</li> <li>□ Practices inhibiting school effectiveness (Aviram, 1993)</li> </ul>
Grounded Theory	<ul style="list-style-type: none"> <li>□ Is designed to inductively build a substantive theory regarding some aspect of practice</li> <li>□ Is "grounded" in the real world</li> </ul>	<ul style="list-style-type: none"> <li>□ A framework of describing developmental change among older adults (Fisher, 1993)</li> </ul>
Case Study	<ul style="list-style-type: none"> <li>□ Is intensive, holistic description and analysis of a single unit or bounded system</li> <li>□ Can be combined with any of the above types</li> </ul>	<ul style="list-style-type: none"> <li>□ A comparative case study of power relationships in two graduate classrooms (Tisdell, 1993)</li> </ul>

**Merriam, 1998:12**

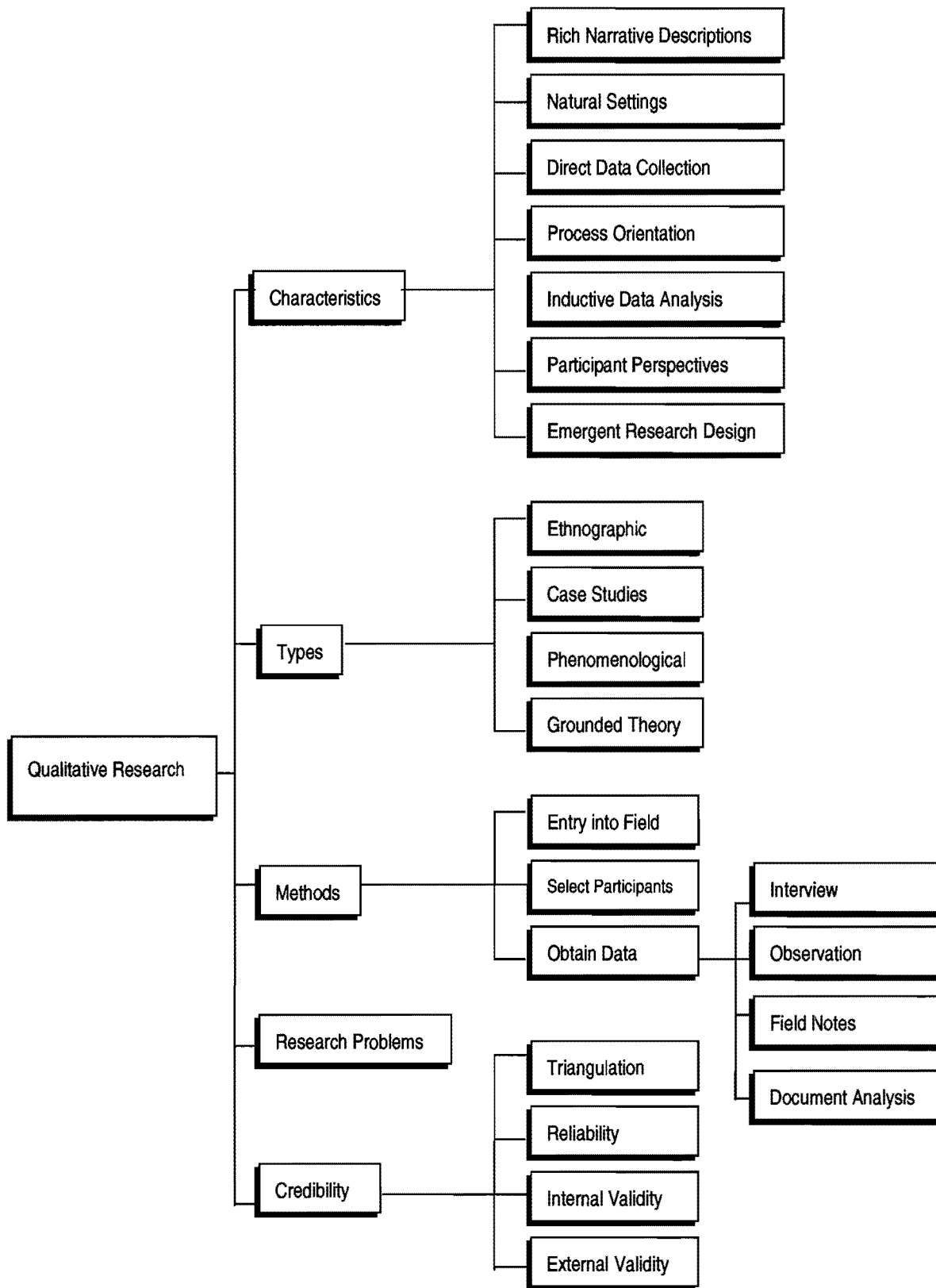
### **5.5.1 THE VALUE OF QUALITATIVE RESEARCH METHOD**

The value of the qualitative research method for this study lies in the fundamental characteristics of this approach. The key philosophical assumption, upon which all types of qualitative research are based, is the view that reality is constructed by individuals interacting with their social worlds (Wolcott, 1980: 59; LeCompte & Preissle, 1993: 13). The main characteristic of the qualitative method in terms of this study is the following:

Qualitative researchers *are interested in understanding the meaning people have constructed*, that is, how they make sense of their world and the experiences they have in the world. Qualitative research “implies a direct concern with experience as it is ‘lived’ or ‘felt’ or ‘undergone’” (Sherman and Webb, 1988:7).

This view supports the experiences undergone by institutions of higher learning in the transformation process and how they construct the meaning for quality imperatives through those experiences within their 'world' (institutional environment). In contrast to quantitative research, which takes apart a phenomenon to examine component parts (which become the variables of the study), qualitative research can reveal how all the parts work together to form a whole. It is assumed meaning is embedded in people's experiences and that this meaning is mediated through the investigator's own perceptions (Patton, 1985:1).

Fig. 5.1 below (McMillan, 2000:251) outlines in detail the characteristics, types, methodologies and the credibility of qualitative research in relation to the research problem. The collection of data is described in exactly the same manner that the researcher went about in this study (i.e. interviews; observation, field notes and analysis of documents).



**Fig. 5.1 Qualitative Research Designs.**

### **5.5.2 SAMPLE SELECTION**

Sample selection in qualitative research is usually (but not always) nonrandom, purposeful, and small, as opposed to the larger, more random sampling of quantitative research. In this study a conscious decision was made to select HEIs that fall within the broad categories of HAIs and HDIs. To that end, 6 institutions, 3 HAIs and 3 HDIs were selected depending on the access they provided into their institutions for the follow-up on the questionnaires distributed and further clarification on how their institutions viewed their governance structures in relation to quality assurance. In each case, at least three (3) interviewees were expected, and it was in only one (1) technikon HAI where the vice principal was interviewed alone when two others could not show up. An attempt was made to schedule another appointment with them but it could not be feasible. Focus group discussions of more than three participants were conducted in one HDI.

Further, the researcher selected 3 universities and 3 technikons falling within the 3 regions in the Western Cape, Kwa-Zulu- Natal, and Gauteng provinces of the Republic of South Africa. The selection was purposeful in that the institutions were representative of the following categories:

- a large historically Afrikaans and entrepreneurial -expanding HEI;
- a multi-campus historically English, traditionally elite and entrepreneurial HEI;
- a merging HDI with a combination of instability and expansion characteristics;
- the largest HDI with emerging stable characteristics;
- a medium sized HDI with uncertain- unstable characteristics and
- an HAI with entrepreneurial characteristics

This selection, the researcher believes, gave a representative group of institutions across the binary line of HEIs. One institution that is expected to merge with another, perceived 'well-resourced' as well as 'not-so well resourced' institutions, were selected in order to bring the current scenario in South African

higher education. This scenario gives a perspective that characterises the higher education milieu at this stage. In addition, this selection would also enhance the triangulation of the responses (Cassell & Symon, 1995: 2).

### **5.5.3 DATA COLLECTION**

The primary aim of data collection and analysis in this method is to promote the emergence of substantive theory grounded in empirical data (Strauss & Corbin, 1994: 273).

The procedure followed after permission had been granted was to make an 'Interview Protocol' available to the participants. This protocol is provided as Appendix C. This is an example of how the semi-structured interviews were conducted with a group of participants. Participants ranged among levels of senior management such as Vice Chancellors, Senior Deputy Vice Chancellors, Deputy Vice Chancellors Academic, Vice Principals (Administration & Finance), Registrars, Institutional Planners and Quality Managers. These were respondents to the questionnaire, and were familiar with the issues raised on the relationship of their governance structures to quality assurance. Verification and clarification of the data was sought in these in-depth interviews.

Interviews were tape recorded after permission was sought and granted, and lasted for an hour or more depending on the availability of participants within their tight schedules. A common understanding of the concepts was established as discussed in Chapter 7 section 7.2). Relevant offices were also visited in some institutions to observe their QA practices. Additional relevant documentation was requested for analysis if they were available. Most of the institutions responded positively to the request. Participants were requested to complete the information sheet for record purposes and evidence of these discussions.



#### **5.5.4 INTERVIEW SCHEDULE**

A broad question phrased in the context of the research question was presented to all participants in no particular order, **'In your opinion, what role has the transformed institutional structures played towards the promotion and assurance of quality at your institution?'**

In order to allow flexibility and yet follow on the questionnaire responses, the interview schedule had themes that are found in the conceptual chapters as well as in the instrument in Appendix B. The sub-headings outlined and discussed are analysed in detail in Chapter 7.

These discussions were recorded and transcribed into a rich text. An introduction to all the interviews followed the same pattern.

#### **5.5.5 DATA ANALYSIS**

The processes involved in the analysis of data are the same, although some authors differ on the stages that constitute data analysis (Huberman & Miles, 1994: 429). According to Marshall & Rossman (1989: 112) qualitative data analysis is a process of building grounded theory by searching for general statements about relationships among categories of data. Although they see the process as messy, ambiguous and time consuming, they point out that it brings creativity and fascination in the order, structure and meaning to the mass of collected data.

The responses to the question were coded (Seidel & Kelle, 1995: 52) within the framework provided to participants for ease of reference, and these were:

- Council: Accountability, fiduciary duties, policy making, strategic planning and the allocation of scarce resources

- Senate: academic standards, improvement approach to quality, international competitiveness of programmes, and value for money for customers
- Quality focus: exceptional, perfection, value for money, fitness for purpose / fitness of purpose, and transformation
- Institutional Forum: its role on quality issues

The data is analysed by capturing broader themes and providing evidence in 'italics' as far as the relevant points are made to the research question, and this approach made the triangulation possible. A systematic content analysis of the interview data is presented in Chapter 7 in a way that demonstrates the relationship between the questionnaire categories and responses, as well as the interview responses.

## **5.6 CONCLUSION**

In this chapter a comparison of the quantitative and qualitative research methods is made in the context of the research question. The research paradigm is also outlined in the context of the conceptual framework made in Chapter 3. The strategy followed and the characteristics of these methods are also described to support the paradigm followed in this study.

The Questionnaire as a primary instrument used for quantitative data collection as well as the interview as a tool for qualitative data collection are described with the steps followed from planning to implementation of the research strategy. In each case, the value of the methods are highlighted so as to emphasise the complementary nature of these methods, in this study that is located within a transformative framework within the higher education system in South Africa.

The quality of the research study is dependent on the efficacy of the methodology employed, and the researcher's attention has been on the issues of reliability and

validity, as well as the triangulation of results within the HDI-HAI classification of institutions of higher learning.