CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

This chapter looks at the methodology and sampling employed for the study and at the researcher's epistemological stands. Methodological principles in the social sciences ensure that we are able to defend our findings, and are those guidelines that researchers agree on, that they rely on to give us acceptable research practices. Methodological principles further enable researchers to attain knowledge by providing the researchers with necessary techniques or tools.

3.2 EPISTEMOLOGY OF THE STUDY

Epistemology is the branch of philosophy which studies the nature of knowledge and truth – with what and how we know and the limits of human understanding. It comes from the Greek words ***episteme*** (knowledge) and ***logos*** (theory). Epistemologists explore questions such as the following: What is knowledge? What does it mean for someone to "know" something? How much can we possibly know? What is the difference between belief and knowledge, between knowledge and opinion, between knowledge and faith? How do we know that 2 + 2= 4 or that the square root of 49 is 7? Says who, or what? Is there an ultimate ground of knowledge, a world of absolutes? Do we know something from reason or from direct observation, or from a little both?

But no one can "observe" 2 + 2 = 4, so how do we know that the statement (or formula) is true? What is truth? Is truth absolute or relative? What is the relationship between the observer and the observed, the knower and the known? Is there an external world which we can make meaningful statements

about and know? Is an object of knowledge a construction of mind? Is the world my idea of it, as Schopenhauer would say, or does it exist independently of all observers? These are just some of the problems that epistemologists address.

Over and above, **Epistemology** − as a branch of philosophy that studies knowledge − furthermore attempts to answer the basic question: What distinguishes true (adequate) knowledge from false (inadequate) knowledge? Practically, this question translates into issues of scientific methodology: How can one develop theories or models that are better than competing theories? It also forms one of the pillars of the new sciences of cognition, which developed from the information processing approach to psychology, and from artificial intelligence, as an attempt to develop computer programs that mimic a human's capacity to use knowledge in an intelligent way.

When we look at the history of **epistemology**, we can discern a clear trend in spite of the confusion of many seemingly contradictory positions. The first theories of knowledge stressed its absolute permanent character, whereas the later theories put the emphasis on its relativity or situation-dependence, its continuous development or evolution, and its active interference with the world and its subjects and objects. The whole trend moves from a static, passive view of knowledge towards a more and more adaptive and active one.

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In **Plato's** view knowledge is merely an awareness of absolute, universal **ideas** or **forms**, existing independent of any subject trying to apprehend to them. Though Aristotle puts more emphasis on logical and empirical methods for gathering knowledge, he still accepts the view that such knowledge is an apprehension of necessary and universal principles. Following the Renaissance, two main epistemological positions dominated philosophy: **empiricism**, which sees knowledge as the product of sensory perception, and **rationalism** which sees it as the product of rational reflection.

The implementation of empiricism in the newly developed experimental sciences has led to a view of knowledge which is still explicitly or implicitly held by many people nowadays: the ***reflection-correspondence theory***. According to this view knowledge results from a kind of mapping or reflection of external objects, through our sensory organs, possibly aided by different observation instruments, to our sensory organs, possibly aided by different observation instruments, to our brain or mind. Though knowledge has no a priori existence, like in Plato's conception, but has to be developed by observation, it is still absolute, in the sense that any piece of proposed knowledge is supposed to either truly correspond to a part of external reality, or not. In that view, we may in practice never reach complete or absolute knowledge, but such knowledge is somehow conceivable as a limit of ever more precise reflections of reality.

It is further argued that the next stage of development of epistemology may be called ***pragmatism***. Parts of it can be found in early twentieth century approaches, such as **logical positivism**, **conventionalism** and the "Copenhagen interpretation" of quantum mechanics. This philosophy still dominates most present work in cognitive sciences and artificial intelligence. According to pragmatic epistemology, knowledge consists of models that attempt to represent the environment in such a way as to maximally simplify problem-solving.

It is assumed that no model can ever hope to capture all relevant information, and even if such a complete model existed, it would be too complicated to use in any practical way. Therefore we must accept the parallel existence of different models, even though they may seem contradictory. The model which is to be chosen depends on the problems that are to be solved. The basic criterion is that the model should produce correct (or approximate) predictions (which may be tested) or problem-solutions, and be as simple as possible.

The pragmatic epistemology does not give a clear answer to the question where knowledge or models come from. There is an implicit assumption that models are built from parts of other models and empirical data on the basis of

trial-and-error complemented with some heuristics or intuition. A more radical point of departure is offered by ***constructivism.*** It assumes that all knowledge is built up from scratch by the subject of knowledge. There are no 'givens', neither objective empirical data or facts nor inborn categories or cognitive structures. The idea of a correspondence or reflection of external reality is rejected. Because of this lacking connection between models and the things they represent, the danger with constructivism is that it may lead to relativism, to the idea that any model constructed by a subject is as good as any other and that there is no way to distinguish adequate or 'true' knowledge from inadequate or 'false' knowledge.

We can distinguish two approaches trying to avoid such an 'absolute relativism'. The first may be called **individual constructivism**. It assumes that an individual attempts to reach coherence among the different pieces of knowledge. Constructions that are inconsistent with the bulk of other knowledge that the individual has will tend to be rejected. Constructions that succeed in integrating previously incoherent pieces of knowledge will be maintained. The second called **social constructivism**, sees consensus between different subjects as the ultimate criterion to judge knowledge. 'Truth' or 'reality' will be accorded only to those constructions on which most people of a social group agree.

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In these philosophies, knowledge is seen as largely independent of a hypothetical 'external reality' or environment. As the 'radical' constructivists Maturana and Varela argue, the nervous system of organism cannot in any absolute way distinguish between a perception (caused by an external phenomenon) and a hallucination (a purely internal event). The only basic criterion is that different mental entities or processes within or between individuals should reach some kind of equilibrium.

Though these constructivist approaches put much more emphasis on the changing and relative character of knowledge, they are still absolutist in the primacy they give to either social consensus or internal coherence, and their description of construction processes is quite vague and incomplete. A more broad or synthetic outlook is offered by different forms or evolutionary epistemology. Here it is assumed that knowledge is constructed by the subject or group of subjects in order to adapt to their environment in the broad sense. That construction is an ongoing process at different levels, biological as well as psychological or social.

Construction happens through blind variation of existing pieces of knowledge and the selective retention of those new combinations that somehow contribute most to the survival and reproduction of the subject(s) within their given environment. Hence we see that the 'external world' again enters the picture, although no objective reflection or correspondence is assumed, only equilibrium between the products of internal variation and different (internal or external) selection criteria. Any form of absolutism or permanence has disappeared in this approach, but knowledge is basically still a passive instrument developed by organisms in order to help them in their quest for survival.

We have come very far indeed from Plato's immutable and absolute ideas, residing in an abstract realm far from concrete objects or subjects, or from the naïve realism of the reflection-correspondence theory, where knowledge is merely an image of external objects and their relations. At this stage, the temptation would be strong to lapse into a purely anarchistic or relativistic attitude, stating that 'anything goes' and that it would be impossible to formulate any reliable and general criteria to distinguish 'good' or adequate pieces of knowledge from bad or inadequate ones. Yet in most practical situations, our intuition does help us to distinguish perceptions from dreams or hallucinations, and unreliable predictions ('I am going to win the lottery') from reliable ones ('the sun will come up tomorrow morning'). Neither correspondence, nor coherence or consensus, and not even survivability, is sufficient to ground a theory of knowledge. At this stage we can only hope to

find multiple, independent and sometimes contradictory criteria whose judgement may quickly become obsolete. Yet if we would succeed to formulate these criteria clearly, within a simple and general conceptual framework, we would have an epistemology that synthesises and extends all of the traditional and less traditional philosophies.
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Testimony to the above discourse is **Marx's philosophy** which profoundly influenced political events in Russia and Eastern Europe in the 20th century. Marx, however, rejects Hegel's **idealism** and notion of truth unfolding towards the Absolute, in favour of a purely atheistic **'dialectical materialism'**. For Marx, the fundamental condition of humanity is the need to convert the raw material of the natural world into the goods necessary for survival. Consequently, production, or in other words economics, is the primary conditioning factor of life.

According to **dialectical materialism**, there is a three-sided conflict between economic classes. The landowners created by feudalism were opposed by the rise of the middle class, forcing a **'synthesis'**, that is, a new economic class, the industrial employers of capitalism. However, the new **'thesis'** of capitalism generates the antithetical force of the proletariat, or working classes. The synthesis that Marx envisages from this conflict, the inevitable dialectical outcome, is **socialism**.

Marx's reasons for supposing that socialism is the necessary outcome of the modern economic conflict are not − though such may appear at times to be the case from his passionate revolutionary invective − predicated and ethical judgements about what is best, or right or just. Rather, Marx insists that socialism is necessarily the most efficient means of securing that which human beings strive for, namely the goods required for survival. Since socialism is the most efficient way to ensure productivity, the progress of 'dialectical materialism' has no need for moral sentiments. Socialism is, according to Marx, a natural outcome of the economic conditions operating on the human being.

It is at this point that the reversal of Hegel's idealism in Marx's materialism can be seen in purely philosophical terms. Whereas Hegel's history of ideas insists that it is the dialectic progress of concepts developments in human understanding that fuel social and political change, Marx asserts that it is transformations in economics that give rise to new ways of thinking, to the development of ideas. This reflects Marx's underlying view concerning epistemology and phenomenology. For Marx, the mind does not exist as a passive subject in an external world, as the prevailing empiricist tradition emanating from Locke would have it. Along with **Kant**, Marx shares the view that mind is actively engaged with the objects of knowledge.

Whereas **Kant** only went so far as to propose that our psychological apparatus imposes certain structures on the flux of experience, Marx held that the subject and object of experience are in a continual process of adaptation. We must order our experience in practical ways, so as to make it useful to our survival. In modern terminology what Marx is proposing is a version of instrumentalism or pragmatism, but at the more basic phenomenological level.

In Kant's metaphysics, since the mind imposes certain categories on experience, all that human knowledge can attain to is a complete and systematic knowledge of the phenomena presented to the mind. This leaves the reality behind those appearances, what Khan called 'the nominal world', utterly beyond any possible human conception. It was a result Kant saw as inevitable, but which Hegel found unacceptable.

In **Hegel's** philosophy, ultimate truth is slowly uncovered through the unfolding evolution of ideas. There is an absolute truth which, Hegel claims, is not propositional truth but rather conceptual. This difficult idea is best approached by first understanding Hegel's views on the development of history and thought.

According to Hegel, the fundamental principle of understanding the mind is the commitment to the falsehood of contradictions. When an idea is found to

involve a contradiction, a new stage in the development of thought must occur. Hegel called this process **'dialectic'**.

Hegelian dialectic begins with a **thesis**, initially taken to be true. Reflection reveals that there is a contradictory point of view to the thesis, which Hegel calls the **'antithesis'** that has an equal claim of legitimacy. Faced with two irreconcilable ideas, thesis and antithesis, a new and third position becomes apparent, which he (Hegel) calls the **'synthesis'**. The synthesis now becomes a new thesis, for which an antithesis will sooner or later become apparent, and once more generate yet another synthesis, and so the process continues.

This gradual, and in Hegel's view, necessary unfolding of thought is a progression towards absolute truth, indeed towards an absolute universal mind or spirit. But truth for Hegel is not propositional. In other words truth does not belong to assertions that say the world, or reality, is of such and such a nature. Rather, attainment of truth in Hegelian philosophy is the attainment of completeness, or the transcendence of all limitation. Ideas, or to use Hegel's terminology, concepts, are that which are capable of being false rather than assertions or propositions. Falsehood is merely limitation, the complete understanding of the absolute. This entails that for Hegel falsified scientific theories are not in themselves wholly wrong but merely do not tell the whole story. They are limited conceptions of a more all-embracing truth.

Hegel's dialectic process concludes with a grand metaphysical conception of the universal mind. He tells us; 'The significance of that absolute commandment, 'know thyself', whether we look at it in itself or under the historical circumstance of its first utterance, is not to promote mere self-knowledge in respect of the particular capacities of the single self. The knowledge it commands means that of man's genuine reality – of what is essentially and ultimately true and real – of spirit as the true and essential being'.

The complexities of Hegelian philosophy are manifold and so too, perhaps as a result of both this and the obscurity of his writings, are the many schools

and philosophical influences that arose from his work. Perhaps the most significant influence exerted by Hegelian philosophy, however, is in the work of Karl Marx as alluded to in the preceding discourse.

Furthermore, it is general thought that it was **Engels**, rather than Marx, who developed Hegel's idea that the universe is undergoing a constant process of change and development into the doctrine of 'dialectical materialism'. Unlike Hegel, Engels was a materialist; for him, what was undergoing the dialectic process of thesis, antithesis and synthesis were not ideas but matter. Just as material causes underlie natural phenomena, so the development of society is conditioned by the development of material forces, which he construed as the forces of material production. Since productivity depends on the relations people enter into in order to effect the production of goods, it seemed that this single fact could explain all social phenomena, including laws, aspirations and ideals.

In the light of the above discourse − on different theories and epistemology − I subscribe to the notion that knowledge is not static and that it is the dictates of the circumstances that influence society as to what should be done or not. Therefore, dialectical thinking as advocated by Hegel and further expounded by Karl Marx through theory of 'dialectical materialism' informs my epistemology. I also support the notion that whatever happens is circumstantially based, and that we need to engage in dialogue in order to improve or augment on the knowledge base in pursuance of improving the societal practices and circumstances that we find ourselves faced with as human beings. Dialectical materialism as theory of nature of knowledge will therefore inform this study or research. Modern societal behaviour is materially inclined and, therefore, it cannot divorce itself from natural phenomena of dialectical materialism.

This argument has relevance in education in that educators look at the benefits before accepting their responsibilities that go hand-in-hand with the requirements of their jobs and also the imbalances caused by the previously

inequitable distribution of resources in the education system which still have an adverse effect in the previously disadvantaged schools.

There is a prevailing view or perception that most educators are lazy and like to blame or point fingers whenever there is some kind of a glitch in the implementation of policies and more often than not seem to be, first, informed by personal or material gain − at the expense of policy and practices in education, the Constitution of the Republic of South African and mission and vision of Department of Education in particular − before applying themselves meaningfully.

The Constitution of the Republic of South Africa, 1996 (Act No 108 of 1996) provides 'the basis for curriculum transformation and development in contemporary South Africa'. The preamble to the Constitution states that the aims of the Constitution are to:

> *Heal the divisions of the past and establish a society based on democratic values, social justice and fundamental human rights*;
> *Lay the foundations for a democratic and open society in which government is based on the will of the people and every citizen is equally protected by law;*
> *Improve the quality of life of all citizens and free the potential of each person; and*
> *Build a united and democratic South Africa able to take its rightful place as a sovereign state in the family of nations.*

In the light of the above, the Constitution envisages that educators at all levels are key contributors to the transformation of education in South Africa. Educators have a particularly important role to play. The National Curriculum Statement envisions educators who are qualified, competent, dedicated and caring and who will be able to fulfil the various roles outlined in the norms and standards for educators without considering first, their material needs.

It is further argued that the promotion of values is important not only for personal development or gain, but also to ensure that a national South Africa identity is build on values different from those that underpinned apartheid education. Central to this discourse is the learner. The kind of learner envisaged is the one who will be imbued with the values and act in the interest of a society based on respect for democracy, equality, human dignity, life and social justice.

Education aims to develop the full potential of each learner as a citizen of a democratic South Africa. It seeks to create a lifelong learner who is confident and independent, literate, numerate and multi-skilled, compassionate, with a respect for the environment and the ability to participate in society as a critical and active citizen.

3.3 THEORETICAL FRAMEWORK

The theoretical framework of the study, the effectiveness of the implementation and monitoring of education policies in schools, is informed by the integration of Max Weber's Bureaucratic model, Henri Fayol's Administration model and Lex Donaldson Contingency theory's model. In the ensuing paragraphs I will briefly describe these theories and their relevance to the study.

According to Weber, bureaucracy is the most logical and rational structure for large organisations such as the department of education. This is premised by the fact that bureaucracies are founded on legal or rational authority which is based on law (education legislations), procedures and rules (policy and departmental regulations). Positional authority of a superior over a subordinate stems from legal authority.

Efficiency in bureaucracies comes from clearly defined and specialised functions; use of legal authority; hierarchical form; written rules and procedures; technically trained bureaucrats; appointment to positions based

on technical expertise; promotions based on competence; and clearly defined career paths.

Furthermore, Fayol's theories of administration on the other hand, dovetail into the bureaucratic superstructure described by Weber as discussed in the preceding paragraphs. Fayol focuses on the personal duties of management at a much more granular level than Weber did. While Weber laid out principles for an ideal bureaucratic organisation, Fayol's work is more directed at the management layer.

Fayol believed that management has five principle roles: to forecast and plan, to organise, to command, to co-ordinate and control. Forecasting and planning is the act of anticipating the future and acting accordingly. Does our education department have the staff that is anticipative and that are able to deal with the challenges faced by our education system efficiently and effectively?

Organisation is the development of the institution's resources, both material and human. Commanding is keeping the institution's actions and processes running. Co-ordination was the alignment and harmonization of the groups' efforts. Lastly, control means that the above activities are performed in accordance with appropriate rules and procedures.

Fayol developed fourteen principles of administration to go with management's five primary roles. These principles are enumerated below:

- Specialisation/division of labour
- Authority with responsibility
- Discipline
- Unity of command
- Unity of direction
- Subordination of individual interest to the general interest
- Remuneration of staff

- Centralisation
- Scalar chain/line of authority
- Order
- Equity
- Stability of tenure
- Initiative

Donaldson (2001) argues that the reason for the focus on effectiveness in contingency theory is that organisational theory has been concerned with explaining the success or failure of organisations. However, organisational effectiveness can have a broad meaning that includes efficiency, profitability, employee satisfaction, or innovation rate.

According to Donaldson (2001) the Contingency Theory of Organisations is a major theoretical lens used to view organisations. The essence of the contingency theory paradigm is that organisational effectiveness results from fitting characteristics of the organisations, such as its structure to contingencies that reflect the situation of the organisation.

Such contingencies include the environment, organisational size and the organisational strategy. In the ensuing discussion, the three contingencies will be discussed for a better understanding of these concepts:

3.3.1 The Organisational Size

Pugh and Hickson (1976) and Pugh and Hinings (1976), as cited by Donaldson (2001), argue that the organisational size contingency has an effect on its bureaucratic structure. This implies that, the size of an organisation, that is, the number of its employees, affects the degree to which its structure is bureaucratic. The bureaucratic structure fits a large organisation, because large size leads to repetitive operations and administration so that much decision making can be by rules, rendering decision making in expensive and efficient.

An unbureaucratic or simple structure, which is not rule-governed and centralised, fits a small organisation, because top management can make almost all the decisions personally and effectively. A large organisation that seeks to use the misfitting, simple structure will find top management overwhelmed by the number of decisions it needs to make, so that the organisation becomes ineffective. The latter argument on organisational size is the one the Education department cannot afford to apply due to its large size.

3.3.2 The Organisational Strategy

This contingency affects divisional structure. Chandler (1962) and Galbraith (1973), as cited by Donaldson (2001), argue that the functional structure fits an undiversified strategy because all its activities are focused on a single product or service so that efficiency is enhanced by the specialisation function. However, the divisional structure fits a diversified strategy because it has diverse activities serving various product-markets; coordinating each product or service in its own division enhances effectiveness.

An organisation with diversified strategy that seeks to use the misfitting, functional structure will find top management overwhelmed by the number of decisions and also suffer lack of responsiveness to markets, so that the organisation becomes ineffective (Chandler 1962; Galbraith 1973). The divisional structure contingency relates more relevantly to the education system because it has a diversity of activities which need to be served by different people, so as to enhance effectiveness through coordination of those activities relevant to teaching and learning by educational authorities.

3.3.3 The Environmental Stability

This contingency affects a mechanistic structure. Burns and Stalker (1961) as cited by Donaldson (2001), argue that the rate of technological and market

change in the environment of an organisation is affected whether its structure is mechanistic [hierarchical] or organic [participatory].

The mechanistic structure fits a stable environment, because a hierarchical approach is efficient for routine operations. Given the routine nature of operations, the managers at upper levels of the hierarchy possess sufficient knowledge and information to make decisions, and this centralised control fosters efficiency. The organic structure on the other hand, fits an unstable environment as a participatory approach is required for innovation. Knowledge and information required for innovation are distributed among lower hierarchical levels and so decentralises decision making, which fosters ingenuity.

Donaldson (2001) further argues that the Contingency theory is to be distinguished from universal theories of organisations, which asserts that there is 'one best way' to organise, meaning that maximum organisational performance comes from the maximum level of structural variables. For example, Specialisation classical management is an earlier organisational theory that argues that maximum organisational performance results from maximum formalisation and specialisation, and therefore it is a universalistic type of theory.

The foregoing brief discussion on the contingency theory of organisations raises several questions about our education system, i.e. about the way it is structured, and as to whether it supplies us with the required or expected outputs. Is it well coordinated? Do primary clients [learners] receive quality service that will help them to realise their potential?

3.4 RESEARCH APPROACH

The study assumes a qualitative research approach. A qualitative research approaches differ inherently from quantitative research designs in that they usually do not provide the researcher with a step-by-step plan or a fixed

recipe to follow. Whereas in quantitative research the design determines the researcher's choices and actions, while in qualitative research the researcher's choices and actions determine the design.

McMillan and Schumacher (2001) define a qualitative research approach as a research method that presents data as narration with words. They further assert that qualitative research provides explanations to extend our understanding of phenomena, or promotes opportunities of informed decisions for social action. Qualitative research further contributes to theory, educational practice, policymaking and social consciousness.

Babbie and Mouton (2001) refer to three important methodological paradigms in the social sciences which are the quantitative, qualitative and participatory action paradigms respectively. As indicated above it was decided that a qualitative paradigm would be most appropriate for the study. Qualitative researchers are interested in understanding rather than explaining human behaviour.

In a similar vein, Merriam (2002) indicates that the purpose of qualitative research is to conduct a basic interpretive study in order to understand how people make sense of their lives and their experiences. Therefore this indicates that a qualitative study is conducted in a natural (rather than experimental) setting and the main concern is to understand the social problem or phenomenon under study.

Welman and Kruger (2001) argue that, according to phenomenologists, what the researcher observes is not reality as such, but an interpreted reality. We cannot detach ourselves from the presuppositions of our cultural inheritance, especially concerning the philosophical dualism (between the observable body and the intangible mind) and our glorification of technological achievements. As a result, the positivists and the anti-positivists interpret the researcher's role differently.

While natural scientists have nothing in common with their research objects (plants, gases, minerals, and so on), human behavioural scientists are in reality members of the group being studied. This enables direct understanding which implies that the researcher can understand the circumstances of the object of study because they can picture themselves in the latter's shoes something that is naturally not possible with natural scientific research. A positivist researcher withdraws as far as possible from the research situation to avoid being biased; the anti-positivist researcher becomes absorbed in the research situation. The anti-positivist approach is most clearly evident in participant observation in which the researcher, by taking part in the activities of the group, strives to become part of the group.

The natural – scientific approach (logical positivism) strives to formulate laws that apply to populations that are universally valid and that explain the causes of objectively observable and measurable behaviour. According to the anti-positivists, it is inappropriate to follow strict natural-scientific methods when collecting and interpreting data. They hold that the natural-scientific method is designed for studying molecules, organisms and other things and is therefore not applicable to the phenomena being studied in the human behavioural sciences.

The different points of view held by the positivists and anti-positivists are reflected in their definitions of their fields of study and their quantitative versus qualitative research aims; the positivists define their approach as the study of observable human behaviour, while according to some anti-positivists, it must deal with the experiencing of human behaviour.

Valle, King and Halling (1989), as cited by Welman and Kruger (2001), express the unity between humans and their world as follows:

In the truest sense, the person is viewed as having no existence apart from the world and the world as having no existence apart from persons. Each individual and his or her world are said to co-constitute one another.

A person derives his or her true meaning from his or her life-world, and by existing he or she gives meaning to his or her world. By life-world we mean the world as lived by a person and not some entity separate from or independent of him or her. The person is dependent on his or her world for his or her existence and vice versa.

Strauss and Corbin (1990) argue that qualitative methods can be used to gain a new perspective on things that are already known, gain in-depth information that may be difficult to convey quantitatively and to understand phenomena about which little is known.

In the light of the above discourse a qualitative research approach seems to be the most appropriate to explore the phenomena under study. This will allow the researcher to gain a deeper understanding of the challenges facing the educators, principals and district officials in the implementation and monitoring of education policies in schools in its original form, i.e. as conveyed or viewed or described by the participants that are sampled for the study. The problems or challenges which they encounter in the process and how they think the situation could be remedied will be explored.

Their experiences both positive and negative and solutions to the problems will help me to have an understanding of the challenges facing the department of education as a system in the Moretele (APO) and the educators, principals and district officials, and how to generate better solutions that will improve efficiency and effectiveness in the implementation and monitoring of education policies in schools. McMillan and Schumacher (2001) attest that qualitative studies are important for theory generation, policy development, educational practice improvement, illumination of social issues and action stimulus.

3.5 SAMPLING

Understanding what purpose research will serve should be a decisive factor in selecting a qualitative sample. A researcher has many sampling choices available that may stem from theory, method, or simple practicalities, such as time and money. Therefore a sample is chosen purposefully and many sampling strategies can be used.

3.5.1 The research sample

Sampling refers to the process used to select a portion of the population for the study. It is incumbent on the researcher to describe the sample in regards to gender, ethnicity, age, socioeconomic class and any other relevant criteria so that research consumers can understand how and why the particular sample was chosen.

Qualitative researchers view sampling processes as dynamic and ad hoc rather than static or a priori parameters of populations. While there are statistical rules for probability sample size, there are only guidelines for purposeful sample size (McMillan & Schumacher, 2001).

In the light of the above, for this study, 13 educators (PL1), 6 principals, and 7 District Officials in the Moretele APO of the Bojanala District were sampled by employing a purposive sampling technique. Purposive sampling enabled the researcher to select participants who have known characteristics that are related to the research topic. The participants provided relevant information as they were affected by or faced the problem investigated.

3.5.2 Reasons for selecting the sample

Since the study assumed a qualitative mode of enquiry, sampling under this enquiry is generally based on non-probability and purposive sampling rather than probability or random sampling approaches. Purposive sampling

therefore, in contrast to probabilistic sampling, was used to select the participants because of some of their defining characteristic that makes them the holders of the data needed for study (Maree, 2007).

The sample that was selected therefore consists of educators, principals and district officials in the Moretele APO − as a site selected for the study − who are teaching and managing schools according to policy directives in the education system. They are therefore responsible to implement and monitor education policies in the district and their respective schools, a phenomenon which the study is investigating.

They are also relevant as they have the experiences and daily grapple with challenges to implement and monitor educational policies effectively in their schools, classrooms and district offices as the department would deem fit. In other words, this sample is knowledgeable and informed about the phenomena the researcher is investigating.

The participants have been in the employ of the education department for more than ten years. They also have the experience of having worked both under the apartheid regime and also under the new democratic regime even though the study is not about comparing the two regimes' approaches towards education. This makes them relevant to share their dilemmas and experiences as they are responsible for ensuring that there is effective policy implementation and monitoring in schools and the district.

3.5.3 Sampling method(s) used

The logic of purposive sampling is that a few cases studied in depth yield many insights into the topic, whereas the logic of probability sampling depends on selecting a random or statistically representative sample for generalisation to a larger population. Probability sampling procedures such as simple random sampling or stratified sampling may be inappropriate when generalisability of the findings is not the purpose (McMillan & Schumacher, 2001). A case type sampling method was employed for this study. McMillan

and Schumacher (2001) explain that “case” refers to an in-depth analysis of a phenomenon and not the number of people sampled.

Examples of sampling by case type are extreme-case, intensive-case, typical-case, unique-case, reputational-case, critical-case and concept/theory-based sampling. The latter example is the one that was specifically employed in this study. It is described as selection by information-rich persons or situations known to experience the concept or to be attempting to implement the concept/theory.

The main goal of qualitative research is to increase understanding of phenomenon as opposed to generalising data extrapolated from the sample to the population at large. Qualitative researchers have an onus of richly describing the findings so they can be transferred to other situations.

3.6 THE RESEARCHER

3.6.1 Background training

I completed my University Diploma in Education in 1990 with the University of the North West; I then enrolled for a Further Diploma in Education specialising in Education Management with the University of Pretoria, which I completed in 2000. Thereafter I studied for a B.Ed. Degree also specialising in Education Management with the same University (UP) which I completed in 2002.

Parallel to my B.Ed. Degree studies, I enrolled for an Advanced Certificate in Labour Law at the same university in the Faculty of Law in 2002, which I completed in the same year (2002). Subsequent to My B.Ed. studies, I registered for a M.Ed. Degree in Education Management, Law and Policies Studies at the University of Pretoria.

3.6.2 Work experience

I have been an educator (PL1) at Ramabele Secodary School since 1991, and a part-time lecturer at the University of Pretoria in the Faculty of Education, Department of Education Management and Policy Studies, responsible for Organisational Management (401 Module) since 2003.

I have been active in education trade union politics since 1993; I have been the National Secretary General, Deputy Secretary General, Full-Time Shop Steward and founder member and NEC member of ITUSA respectively.

During the 1994 transitional processes, I served in the North West provincial forum that was tasked with the integration of all the erstwhile racially structured departments of education into a single non-racial department of education of the province that upholds policy directives as expounded in the new policy documents and the Constitution of the country.

I also served as the Provincial Secretary of NAPTOSA North West Provincial Unity Committee (PUC) that was responsible for overseeing and coordinating the amalgamation processes of NAPTOSA affiliates in the North West Province.

I was subsequently appointed the Chief Executive Officer (CEO) of amalgamated NAPTOSA in North West Province, a position I relinquished at the end of 2007.

I also have served in the medical aid schemes industry as the acting chairperson, Chairperson and board member of a Board of Trustees respectively of one of the Open Medical Aid Schemes in the country since 2004.

3.6.3 Research Experience

I studied research methodologies (qualitative and quantitative) in my B.Ed. Studies and further continued with these modules in my M.Ed. studies as part of my course-work.

Over and above my responsibilities as the Secretary General and subsequent CEO, I represented the union in the North West Advisory Board for Educator Education in the province. This body was made up of the employer (department of education), trade unions and institutions of higher learning in the North West province. Its mandate was to research and advise the department of education in the province on educational challenges with regard to educators' development −amongst others− in the province.

I also worked as a part-time research co-ordinator at the Human Science Research Council (HSRC), Policy Analysis Unit (PAU), responsible for the co-ordination of the study entitled: *The right returns to investment in education: Measuring investment efficiency in Early Childhood Development, Foundation Phase (Primary) and FET phase (Secondary) of the South African Education System* in the North West Province.

3.7 LIMITATIONS OF THE RESEARCH

- The project:
  The research was conducted in the Moretele district which is rural. The schools in the district are vastly scattered and the researcher found it difficult to reach more schools as this was a self-sponsored project. The sample might not be a balanced representation of the total population of the district. This might present itself as a limitation of this study due to the reasons mentioned.

- The process:

  The research process was a very challenging one as the researcher most of the time had to depend on his own limited experience during the research processes. The absence of a dedicated team for the study − where expertise amongst team members might be shared to produce a better result −might also have some limitations for this research.

- Research instruments:

  The questionnaires and the interview schedule that were used to collect data were designed by me and were verified only by the study supervisor. The respondents might have found it difficult to complete the questionnaires or even giving accurate answers during the interviews as a result of the ambiguity of questions that might have emanated from the interviews. These possible limitations are accepted as this was my first experience in conducting research.

- The Researcher:

  I wish to declare that there might be instances where I might have been biased in the research project and also been subjective either during data collection process or during the analysis and discussion of the results due to lack of adequate experience in dealing with research-related issues.

3.8 DATA GATHERING METHODS

Padget (1990) mentioned three methods of data collection in qualitative research: observation (of the respondents, the setting and oneself), interviewing and review of documents or archival materials. People's words and actions represent the data of qualitative inquiry. Stake (1995) and Yin (1994) identified six sources of evidence in case studies, which are documents, archival records, interviews, direct observation, participation observation and physical artefacts. This research used semi-structured interviews and questionnaires to collect data from the participants.

3.8.1 Document Analysis

The researcher also intended to conduct document analysis in order to gather more information for the study. This was aimed mainly at the district officials. Section B of the questionnaire for district officials, Question 10 and 11 to be more specific, request respondents to attach policy documents that would substantiate their responses.

The purpose of this section was to assess district officials' understanding of education policy implementation and monitoring. Unfortunately respondents did not attach any document(s) and this made it impossible for the researcher to do document analysis for the study.

3.8.2 Questionnaires

Questionnaires are an inexpensive way to gather data from a potentially large number of respondents. They are often the only feasible way to reach a number of reviewers large enough to allow statistical analysis of the results. A well-designed questionnaire that is used effectively can gather information on both the overall performance of the test system as well as information on specific components of the system.
13 questionnaires for the educators (PL1), 6 for principals and 7 for district officials were hand-delivered to selected respondents in the schools and at the APO offices in the Moretele Area Project Office.

Three questionnaires were designed. These questionnaires were designed in line with the type of respondents the study had targeted. In terms of the study, three types of participants were targeted: educators (PL1), principals, and officials from the district offices of education in the Moretele APO. Questionnaires were then designed accordingly. The ensuing discussion will then elaborate on each of the questionnaires.

3.8.1.1 Questionnaire for District Officials

This questionnaire is divided into two sections (Section A and B). The purpose of section (A) was to gather biographical data that will be used to answer questions in the research study. These data will help the researcher in analysing responses, drawing conclusions and making recommendations in accordance with the responses in this section.

The second part is Section B; the purpose of this section is to assess the district officials' understanding of education policy implementation and monitoring. The section contains questions such as; rate your level of involvement in policy implementation and monitoring in line with specifically formulated sub questions (i) How often do you visit schools to monitor the implementation of policies? ;(ii) To what extent do you give schools support and motivation? In all of these questions participants were requested to give at least two practical examples in the provided spaces in the questionnaire and to attach copies of policy documents, meeting schedules etc. Data drawn will also help in making informed conclusions and recommendations.

3.8.1.2 Questionnaire for School Principals

The questionnaire for school principals is divided into three sections (Section A, B and C). The purpose of section A, as for the district officials, is to gather biographical data that will be used to answer questions in the research study. These data will help the researcher in analysing responses, drawing conclusions and making recommendations in accordance with the responses in this section.

Section B of the questionnaire is based on policy understanding and implementation. The purpose of this section is to investigate principals' knowledge of education policies and their implication for effective teaching and learning. Principals were asked to respond to sub-questions in this section, using a particular scale that was provided in the questionnaire.

Section C is based on monitoring and support. The purpose is to investigate the degree or extent of monitoring and support the schools receive from the district offices. The researcher wanted to determine the role of the provincial and district offices in implementing policy in schools. There are sub-questions which respondents have to answer using a provided scale. Data drawn will also help in making informed conclusions and recommendations.

3.8.1.3 Questionnaire for Educators

The questionnaire for educators is divided into two sections (Section A and B). The purpose of section A as for the district officials and the school principals is to gather biographical data of the participants used to answer questions in the research study and give the researcher a clearer understanding of the participants in terms of their biographical information. These data will help the researcher in analysing responses, drawing conclusions and making recommendations in accordance with the responses in this section.

Section B of the questionnaire is based on policy understanding and implementation. The purpose of this section is to investigate educators' knowledge of education policies and their implications for effective teaching and learning. Educators were asked to respond to sub-questions in this section using a particular scale that was provided in the questionnaire. Data drawn will also help in making informed conclusions and recommendations.

3.8.1.4 Development of Questionnaires

Three questionnaires were designed. These questionnaires were designed in line with the type of respondents the study had targeted. In terms of the study, three types of participants were targeted: educators (PL1), school principals, and officials from the district offices of education in the Moretele APO.

The three named groups are perceived to be fundamentally related with the phenomenon, effective implementation and monitoring of education policies in schools. As these people hold different positions and their job responsibilities

differ substantially, questionnaires had to be developed in line with the responsibilities and expectations that are attached to their work (posts). This was done primarily to avoid confusing the respondents.

3.8.1.5 Distribution and feedback (collection and response rate)

A total of 26 questionnaires were produced and hand-delivered within a period of five days to selected participants at their places of work and some to their respective homes. To be more specific: 13 questionnaires for the educators (PL1), 6 for principals and 7 for district officials were hand-delivered to selected respondents in the schools and at the APO offices in the Moretele Area Project Office.

During the distribution we also discussed and agreed on suitable time-frames for completion and collection of the questionnaires. Most of the respondents requested a week as they mentioned other personal and work commitments and that they wanted to give the questionnaires their full attention. This request was granted and they were also willing to give me their contact numbers to check and remind them or to agree on where and what time to come and make a collection.

3.8.1.6 Problems experienced

All the participants responded positively and the researcher went to collect the questionnaires. This was, however, not an easy exercise. Some we had to extend the time-frames agreed upon as they could not meet the agreed deadline due to a number of reasons; or they had misplaced the copy and requested a new one; or they had experienced unforeseen circumstances that needed their urgent attention; some had left or forgotten them at work or at home.

3.8.1.7 Semi-structured Interviews

Patton (1990) refers to three types of qualitative interviewing: (1) informal, conversational interviews, (2) semi-structured interviews and (3) standardised, open-ended interviews. In this study the researcher employed semi-structured interviews to gather information. Semi-structured interviews are qualitative data gathering techniques designed to obtain information about people's views, opinions, ideas and experiences. By using this method the researcher was free to follow up ideas, to probe responses, and to ask for clarification or further elaboration.

The researcher formulated the interview guide in consultation with the study supervisor. The interview schedule or guide is a list of questions or general topics that the interviewer wants to explore during the interview. An interview guide ensures good use of limited time, and helps to keep interactions focused. In keeping with the flexible nature of qualitative research designs, interview guides were modified to focus attention on areas of particular importance and to exclude questions the researcher found to be unproductive for the goals of the research.

Conducting an interview is a more natural form of interacting with people than making them fill-in a questionnaire. Mischler (1986) indicates that an interview is a joint product when interviewees and interviewers talk together. Through the use of semi-structured interviews the researcher had an opportunity to get to know the participants quite intimately and this led him to understand how they think and feel.

Patton (1990) in Arksey and Knight (1999) argues that one of the techniques in good interviewing is the use of probes. Three types of probes were identified that a qualitative interviewer can use in order to have a good interview: detail-oriented probes, elaboration probes and clarification probes. The researcher used these probes to make sure that information given by the participant is valid and reliable. With detail-oriented probes, I, the researcher, raised follow-up questions to fill in the picture of whatever I was trying to

understand, for example, what should be done to improve the standard of policy implementation and monitoring?

In terms of elaboration probes, interviewees were asked to tell more about their situation following the answers they had provided. Clarification probes were also used as the researcher wanted to have a clear understanding of what the participants had said or mentioned. Probing helped the researcher to understand the situation of the participants. Arksey and Knight (1990) assert that researchers using semi-structured interviews are advised to probe and prompt participants' responses.

Before conducting actual interviews with the participants selected for the study, the researcher conducted a pilot study. The pilot study helped the researcher to test whether the questions and themes were relevant to the study. It emerged from the pilot study that a number of questions were not clear or specific to the participants, which made it difficult for them to give relevant answers. The researcher then rephrased some or changed the questions and formulated them in such a way that the participants could easily understand. By conducting a pilot study the researcher was able to get more meaningful responses.

In order to receive the interviewees' consent, I informed them about the aims of the study and requested them to sign a consent form. At the beginning of each interview the interviewer gave the interviewees the opportunity to warm up by asking them general questions in order to make them feel comfortable. The establishment of rapport was very important in the interview sessions and it had to be developed before commencing with the interviews.

A basic decision going into the interview process is how to record interview data. It is the researchers' preference to choose the method of data recording. In this study the researcher employed audio taping to capture the data. Audio taping is probably the most popular method of recording qualitative interviews. Patton (1990) says that a tape recorder is "indispensable" while Lincol and Guba (1985) do not recommend recording except for unusual reasons.

Recordings have the advantage of capturing data more faithfully than hurriedly written notes might and it also makes it easier for the researcher to focus on the interview.

The tape recorder provides an accurate, verbatim record of the interview, capturing the language used by the participants including their hesitations and tone in far more detail than would ever be possible with note-taking. It helps the researcher to capture the whole conversation during interviews with the participants. By using a tape recorder the interviewer is allowed to devote his full attention to the interviewees and to probe in-depth. Arksey and Knight (1999) argue that a tape recorder demonstrates to participants that their responses are being treated seriously. Terre'Blanche and Kelly (2002) confirm that tape recording shows interviewees that the researcher takes their views seriously.

3.9 STORAGE OF DATA

Data will be stored in the University archives and the University regulations on data storage will be adhered to.

3.10 DATA ANALYSIS

The title of the research was informed by concerns I had and still have on the way education policies are implemented and monitored by the educators, principals and the district officials in our schools. This is by no means − whatsoever − exonerating the provincial and national departments of education from the equation. The concerns are aggravated more by what is happening on the lower implementation level of the education system.

It is both common sense and scientifically evident that if policies are implemented in the way they were meant to be by those who crafted them, the system − educational or otherwise − is bound to yield the intended results of

producing learners who will be able to participate meaningfully in society by leading creative, critical and productive lives as adults.

The research followed a qualitative approach whereby I conducted semi-structured interviews and questionnaires to educators, principals and district officials in the Moretele Area Project Office (APO) of the Bojanala Region in the North West Province. The approach I took implies that educators (post level 1 and 2 educators), principals (including acting principals) and district officials were interviewed using a common interviewing instrument that asks the same questions to all participants irrespective of the positions they are holding. The ensuing discourse is then more informed by what has been found in the interviews rather than by the information gathered in the questionnaires.

To collect these data I used a digital tape recorder to record every interview and thereafter I transcribed the data into my computer. Twelve participants were interviewed (five post-level 1 educators, three principals and four district officials). I also distributed a table which formed part of the interview instrument − question 3 of the interview instrument to be more specific − whereby participants were requested to complete in order to provide me with their understanding with regard to categories of policies in terms of their roles, status and how they are related to other policies.

The next I did was to listen to the interviews and captured in my computer key words, phrases and sentences in all interviews under each question which I asked during the interview.

3.11 ETHICAL CONSIDERATION

Permission for conducting this research project in Moretele APO, which is in the North West Province, has been duly granted by the Head of Department of Education in the Province. The Ethics Committee of the University of Pretoria has furthermore granted a clearance certificate for the research to be

conducted. All other ethical requirements were also adhered to when selecting the participants for the research.

3.12 CONCLUSION

This chapter looks at the research design and the methodology employed. The design of the data collection instruments is discussed. Three sets of questionnaires for the sampled grouped were looked into. The sampling method used for the study was also discussed. The following chapter looks at the presentation and discussion of the findings.