CHAPTER ONE

AN ORIENTATION TO THE STUDY

1.1 INTRODUCTION

The need for fundamental constitutional change in education in South Africa was apparent for many years, eventually leading to the adoption of the Constitution of the Republic of South Africa, Act 108 of 1996 (1996; hereafter Constitution). The change involved redress of the previous education system. One of the first priorities of the education authorities was to bring education in line with the Constitution. This meant that the constitutional principles of democracy and the emphasis on values, among other things, had to be adhered to.

In October 1997 the Minister of Education promulgated a new national curriculum policy. As a result, in terms of the National Education Policy Act 27 of 1996 (27 of 1996; hereafter Policy Act), an Outcomes-Based Curriculum was published in the Government Gazette (Department of Education, 1997). All schools were obliged to implement Outcomes-Based Education (OBE). The National Curriculum Statement (National Department of Education, 2002) and the National Assessment Policy (Department of Education, 2007c) guided the implementation and assessment until 2010 after which the National Curriculum Statement (CAPS; Department of Education, 2011) became fundamental in guiding school-based assessment.   The new curriculum, Curriculum 2005, probably contributed most significantly to curriculum reform in South Africa in the last century (Gauteng Department of Education, 2000). As the first major curriculum statement of a democratic government, it signalled a paradigm shift and a dramatic break from the past. This implied, among other things, a move away from a system of only measurement and evaluation that focused on the use of tests and exams, to the modern concept of assessment that requires learners to apply acquired knowledge, hence the term Outcomes-Based Education (Policy Act; 27 of 1996).

Since 1997 educational assessment at South African schools has been in a process of transformation (Department of Education, 2007b:42). Old models

of assessment, such as pen and paper tests, are seriously questioned and new models (new exampler question papers) are being developed. Open-ended questions, exhibits, demonstrations, hands-on-experiments, computer simulations and portfolios are only a few of these new proposed models. In addition to the models of exampler question papers, the Department of Education (2006c:5) has added a new model, namely Common Task Assessment (CTA).

At this point the researcher needs to clarify why the focus of the research is still on the implementation of CTA, bearing in mind that CTA was phased out during 2010 (Department of Basic Education, 2010:1) and replaced with the Curriculum and Assessment Policy Statement (CAPS; Department of Basic Education, 2011:3). The researcher completed her data collection during 2010 where after the assessment policy changes took place. Abrupt policy changes in education in South Africa are a widely acknowledged phenomenon and studies about education polices are often affected by changes in policy (see for example Henrico, 2010:31-32).

In support of being concerned about unforeseen changes in this regard, Jansen (2002:202) points out South Africa's *fascination with new policy statements* as the probable most important approach concerning *policy engagement in education.* Sadly then, implementation would then fail dismally.

The impact of changes to the CTA on this study was managed carefully. The researcher compared the assessment principles of CTA and CAPS and focused her contribution on those elements applicable to CAPS implementation. In consultation with the Director of Research Development where the study was conducted, these measures were evaluated as appropriate and successful to manage this unforeseen event. Chapter Six highlights the similarities between CTA and the CAPS, and the strengths and weaknesses observed in the data in relation to the management of the design and implementation of CTA were used to formulate novel and applicable guidelines to assist in enhancing the quality of the design and implementation of school-based assessment according to the CAPS.

CTA is implemented in Grade 9 as an external assessment component, which means that the activities and programmes that form part of CTA are designed, developed, implemented and coordinated by Provincial Education Departments and the Department of Education (national), either collectively or individually. CTA is a series of tasks that intend to obtain information about a learner's demonstrated achievement. These tasks must cover a range of assessment activities, such as, for example, practical work/class work/homework/orals/presentations/pen and paper tests.

In order that a learner can obtain a General Education and Training Certificate at the end of Grade 9, the evidence of the school-based continuous assessment which is reflected in the learners' portfolios will contribute 75% in the final decision-making process towards each Learning Area, whereas the external assessment component for each Learning Area, the CTA, will contribute 25% (Gauteng Department of Education, 2002a; Department of Education, 2003a:13).

As the use of CTA implies experimenting with an alternative measure of assessment, it automatically involves serious questioning as to whether this new approach to assessment necessarily promotes quality of learning in education, and whether it meets the prerequisites for effective assessment.

Presently, the researcher is concerned about questions pertaining to the quality and management of the designing and implementing of CTA, namely: are there validity, reliability and authenticity when utilizing CTA as an instrument for measuring the achievement of learners, and how is the whole process of designing and implementing CTA managed?

According to SADTU (2003), it is disturbing to note that CTA is set by people who did not participate in choosing the learning content presented in the different Learning Areas. CTA needs to be designed, developed and set provincially, with the National Department of Education fulfilling a co-coordinating, supportive and monitoring role (Department of Education, 2003b:6).

The researcher of this thesis is concerned that if there is no consultation with the educators during the setting of the CTA, the validity of the content of CTA may be in question.

According to the Department of Education (2003b:6), CTA poses the following problems: Firstly any CTA comprises of two sections, namely Section A and Section B; it is administered over a period of time and not as a once-off event (Department of Education, 2003b:6). Section A requires learners to do research, watch television, read magazines and do Internet searches. The first problem is that these resources are inaccessible to most of the learners, more especially those at township and farm schools. According to the researcher, learners from farms cannot even access a magazine, let alone a television set, yet they are expected to write a similar paper as the learners who have more readily available access to such sources.

A second problem related to CTA is that the diversity of learners is not considered (Ramotlhale, 2008:30; Sithole, 2009:23). According to the Department of Education (2003b:6), the principle of inclusion will be applied through agreed upon special conditions in which the assessment takes place, adjustment of time allocated for assessment and unique, individualized assessment techniques. Yet not one of these aspects is seen to be happening at schools.

A third problem related to CTAs which is experienced by educators at school, is the time constraint on the completion of Section A of CTA. At some schools, the periods are still 30 minutes in length and in a week, educators have only five periods, which amounts to 2 hours 30 minutes, in which to complete the tasks with learners. Most of the tasks in Section A each require 60 minutes or more. They need at least an hour to complete the tasks because they involve issuing work and question papers to learners. The time factor makes it difficult for educators to administer these tasks. The learners are also pressurized, as all the educators set demands in order to complete the tasks for their respective Learning Areas on time. In the process of trying to please all educators, learners suffer and lose marks because of incomplete tasks or tasks that have not been done at all (Reddy, 2004:32; Naidoo, 2006:19; Ramotlhale, 2008:35).

These three problems necessitate the Department of Education's consulting the educators when designing CTA. It is advisable to set CTA in different districts by means of clustering, because educators know their learners and their situations the best, as well as how available the necessary resources for the completion of CTA are (Department of Education, 2003b:38).

In the fourth instance, while there is presently a departmental management plan in place that manages CTA both provincially and at district level, schools themselves have no proper management plan in place to promote quality in the designing and the implementation of CTA (Ramotlhale, 2008:21).

The emerging management approach in South Africa is informed by the central goal of education that propounds the development of a democratic, service-orientated education and training management system (Department of Education, 2004a:3). The system embodies such principles as the participation of stakeholders and of the broader community, equity, effectiveness and efficiency, accountability, responsibility, sharing and democratic processes (Xaba, 1999:23).

Based on the researcher's own experience in teaching, there is a lack of quality management capacity at school levels with regard to the design and implementation of CTA, due to a lack of skills, knowledge, loss of skilled staff, resistance to change, a need for new policies and management infrastructures and a lack of clear policy statements and regulations on what is expected in practice. Moreover, not all School Management Teams (SMTs) understand the implications of the South African Schools Act 84 of 1996 (hereafter called Schools Act; 84 of 1996) for the management, leadership and governance at their schools.

After looking at these aspects and after conducting a title search on current and delivered post graduate studies within this field of research, the researcher discovered that there is no evidence of quantitative descriptive studies done in South Africa at Sedibeng-East and Sedibeng-West schools to determine how the design and implementation of CTA are managed to meet with criteria for quality. Yet at an international level, the studies of CTA were done by the Victorian Department of Education, Australia, to explore their

experiences with regard to the implementation of CTA (Cumming & Maxwell, 2001:89-108).

This current study could awaken attentiveness to how managing the quality of the design and implementation of CTA could be improved at all schools in the Sedibeng-East and Sedibeng-West Districts.

1.2 PURPOSE STATEMENT

The intent of this non-experimental descriptive survey study, with its small qualitative research dimension, was to obtain a perspective on how the quality of the design and implementation of CTA was being managed at the participating schools. Quantitative research was used to conduct this study, and survey research played an essential role (*cf.* 4.3.3.4).

In this study, questionnaires that comprised closed and open-ended questionnaire statements were used to establish and compare similarities and differences between the perceptions of the participating learners and those of the educators. Two education districts were involved, namely Sedibeng-East and Sedibeng-West. The responses to the questionnaires were analysed in order to establish how the quality of the design and implementation of CTA is managed at Sedibeng-East and Sedibeng-West schools. The motivation for choosing this method and both districts is discussed in detail in Chapter Four (*cf.* 4.3.3.7).

At this point, management is defined as developing and implementing assessment policies (*cf.* 4.3.3.2; Department of Education, 2007c:15).

Based on the research results, the researcher developed a management intervention plan guidelines for the improvement of design, implementation and management of CTA.

1.3 OVERALL RESEARCH QUESTION AND AIM

The next paragraph will explore both primary and secondary questions of research.

1.3.1 Primary research question

While the researcher was considering the problem, the foremost question that suggested itself was this:

To what extent do the management of the design and the implementation of CTA meet with criteria for quality?

1.3.2 Secondary research questions

Based on the main research question (*cf.* 1.3.1), the following secondary investigative questions guided the researcher's investigation:

- What does quality in the design and implementation of CTA entail?

- How is quality in the design and implementation of CTA presently managed?

- To what extent is there a difference between learner and educator perceptions regarding quality in the design and implementation of CTA?

- Which components and processes could be included in the guidelines towards a management intervention plan to support schools in the Sedibeng-East and Sedibeng-West Districts in improving the quality in the management of the design of school-based assessment?

Now that the research questions have been attended to, the focus turns to the objective of the study.

1.3.3 Aim of the study

The overall aim of this study was to determine to what extent the management of the design and implementation of CTA satisfies criteria of quality in the Sedibeng-East and Sedibeng-West Districts.

This overall aim was operationalized as follows:

- by indicating what quality entails in the designing and implementation of CTA (*cf.* Chapter Two);

- by determining how quality in the designing and implementation of CTA is managed at present (*cf.* Chapter Three);

- by establishing whether there is a difference between learner and educator perceptions regarding quality in the design and implementation of CTA; (*cf.* Chapter Five); and

- by suggesting components and processes based on the data to be included in the guidelines towards a management intervention plan to be used at the schools in the Sedibeng-East and Sedibeng-West districts to improve quality management of the design and implementation of school-based assessment (*cf.* Chapter Six).

1.4 CONCEPTUAL FRAMEWORK

1.4.1 The gist of a conceptual framework

According to Dyer *et al.* (2003:64), a framework is similar to a standard literature review as it lists the most important research conducted in a specific area, but goes beyond the simple literature review, as it underpins a framework of research. A well designed conceptual framework can be seen as a research tool to scaffold research (Smyth, 2004), as the literature is structured in such a manner to best explain the progression of the research (Dyer *et al.*, 2003:64) in order to assist the researcher in developing an understanding of the situation studied (Smyth, 2004).

The conceptual framework becomes the heart of the study as it keeps the research focused by (Dyer *et al.*, 2003:64; Smyth, 2004; Creswell, 2009:20):

- providing links from the literature to the research aims and questions;

- enlightening the research design;

- establishing points of reference for discussion of literature, methodology, as well as analysis of data; and

- adding to the trustworthiness of the study.

1.4.2 The conceptual framework of this thesis

Theron (2002:78) asserts that schools are considered as formal structures therefore people stand in certain relationships towards one another where certain objectives are aimed at.

The researcher of this thesis conceptualized her research in terms of the framework that looks at establishing a very specific societal relationship that exists within a school (Taljaard, in Van der Westhuizen & Mentz, 2002:65). A societal relationship originates from persons who come together with the rationale of meeting the requirements of a common concern and the latter is then more important than any person's individual interest (Taljaard, in Van der Westhuizen & Mentz, 2002:65).

Barnard (2004:46) and Theron (2002:98) indicate that the school community is made up of parents/caregivers, learners, educators, Heads of Departments, deputy-principals and principals each with a different role, collaborating towards the communal interest, namely the education of the learner.

1.4.2.1 Concept definitions

In clarifying the concepts with definitions, the researcher wishes to emphasize that the principles for quality management are generic in nature, and therefore also applicable to assessment in the context of the CAPS.

This study was conceptualized in terms of and based on the following conceptual frameworks:

- *Quality management*

- *Management* is defined as a way or action to regulate or take charge of or maintain control over. In this study managing means the skilful employment of means, skills and ingenuity to conduct and administer the CTA Instrument efficiently and effectively (Business Dictionary, 2012:1).

- In the context of this study, *quality* is defined as management of the design, and implementation of CTA, the management processes that are currently used to ensure that quality is maintained. The next section presents the research methodology.

- In the context of this research, *quality management* refers to multidimensional aspects (Campbell & Rozsnyai, 2002:19): as supported by Heyns (2002:6) below, the first aspect is that of quality excellence, which is regarded as setting the best goal to meet the

required standards, and the second aspect is quality as fitness purpose, which requires that the product or service meet the customer's needs, requirements or desires. In this thesis, the researcher will look at the CTA instrument to determine whether it fits the purpose of inter alia meeting the needs of learner during assessing (Campbell & Rozsnyai, 2002:22). Furthermore, the study looks at quality improvement/enhancement which emphasizes the pursuit of continuous improvement and is predicted on the notion that achieving quality is central to the academic ethos, to educators and to education managers themselves who know what quality is and how it should be managed in their schools with regard to the assessment of learners.

✤ According to Heyns (2002:6), ***management of quality in assessment*** is the combination of processes used to ensure that the degree of excellence specified is attained and the reference to excellence is supported by Campbell and Rozsnyai (2002:19) above. This is a quality management system which sums up the activities and information an organization uses to enable it to better and more consistently deliver services that meet and go beyond the needs and expectations of its customers and beneficiaries, most cost effectively and cost efficiently.

• ***Managing the quality of design in CTA***

✤ ***CTA*** consists of two parts, namely Section A and Section B. Section A consists of performance-based assessment while Section B is based on assessing skills that could be easily accessed through paper and pen tests. The performance–based assessment provides systematic or adequate measurement by a paper and pencil test: practical communication skills, demonstrated by working in groups in EMS simulations of entrepreneurial/market day skills could be a good example (Poliah, 2003:5). Performance-based assessment permits learners to show what they do in real life situations; this is a type of assessment that emphasizes learners' ability to translate their knowledge, understanding and skills into action. The performance-based assessment would include research, exhibitions, presentations,

debates and simulations. Moreover, in performance–based assessment both process and product are assessed. A process is a procedure that learners use to complete a task. A product is a tangible outcome that is a result of completing a process (Poliah, 2003:6).

↳ According to Poliah (2003:6), a **task**, for the purpose of the development of the CTA instrument will be understood as consisting of one or more activities – this means that a specific outcome or a cluster of outcomes can be assessed using one task (for example: creative tasks, data handling and problem-solving) and this task could include one or more activities. The tasks in CTA assess the attainment of specific outcomes for each learning area, such as mastery of knowledge, reasoning, skills and the ability to create products.

↳ **Assessment tasks** would assess the following aspects (Poliah, 2003:6):

✓ *cognitive competencies* – which are problem-solving; critical thinking; formulation of questions; searching for relevant information; investigation; inventing and creating new things; analysing data; presenting data communicatively; and oral and/or written expression;

✓ *meta-cognitive competencies* – which are self-reflection and self-evaluation;

✓ *social competencies* – which are concerned with leading discussions and conversations, persuading, cooperating, working in groups; and

✓ *affective dispositions* – which are perseverance, internal motivation, initiative, responsibility, self-efficacy, independence, flexibility, and coping with frustrating instructions. Note should be taken that affective behaviour is generally assessed informally.

When designing these assessment tasks, the following principles need to be adhered to (Poliah, 2003:6):

✓ A task could assess a variety of specific outcomes.

✓ The tasks should be grounded in real-life contexts while using processes appropriate to the Learning Area.

✓ The main question to be answered could be formulated as a problem.

✓ Explicitly stated scoring criteria should be included as part of the task.

✓ The task should allow for multiple solutions.

✓ The instructions should be clear.

✓ The task should be challenging and stimulating to the learner.

✓ The tasks should be structured so that educators can help learners to succeed.

The development of CTAs based on the Outcomes-Based approach was a first for South Africa in 2001 when it was first initiated. CTAs were developed by teams of learning area experts drawn from the provincial education departments. These teams met nationally during designated writing sessions and the designing of these tasks was coordinated by the GETC Curriculum Directorate of the Department of Education and supported by the Independent Examination Board (IEB) that has had some experience in the writing of common tasks for assessment. Poliah (2003:13) indicates that in 2002, CTAs were intended to be administered among all learners at all schools. However, due to logistical difficulties, it was made optional. For 2003, the CTAs had been developed and moderated, and it was mandatory for all schools to administer them in November 2003.

↳ The Department of Education Assessment Policy Guideline for Economic and Management Sciences (Department of Education, 2007b:3) defines *common task assessment* as various forms of assessment activities which may be set nationally, provincially, in districts or clusters for each learning area.

↳ In this study, the operational definition of the term CTA Instrument is described as the various forms of assessment activities for the Economic and Management Sciences set nationally as the external assessment component to complement school-based assessment for Grade 9 (Poliah, 2003:12).

↳ The quality in the design of CTA can be guaranteed by adhering to the following criteria:

- ✓ Race (2003:73) explains ***transparency in assessment*** as the extent to which learners know where the goalposts are. The goalposts may indicate the intended learning outcomes, matched nicely to the assessment criteria which specify the standards to which these intended outcomes are to be demonstrated by learners, and also specify the forms in which learners will present evidence of their achievement of the outcomes.

- ✓ With quality being defined by the degree to which set objectives are achieved, as supported by Campbell and Rozsnyai (2002:19) above, the ***fitness of purpose*** (Thomas, 2003:340) or fitness for use of market-driven outcomes refers to a notion of quality in which those who are to receive a product or service make sure their expectations for this product or service (*cf*. 2.2.3), or an alternative shorthand definition of quality as fitness purpose, has been adopted by a state-sponsored system of academic quality audit and assessment to allow judgment about moving towards accomplishing an institution's publicity (Woodhouse, 1999:32). This perspective on fitness purpose is reminiscent of Campbell and Rozsnyai (2002:19), mentioned above, who indicate that the service needs to meet the customer's requirements

- ✓ According to Vandeyar and Killen (2003:32*) **authentic assessment*** (*cf*. 2.2.3) practices often include investigations conducted collaboratively, hands-on solving of real problems, performances completed over extended periods of time and the presentation of evidence of learning through portfolios or non-written products (Vandeyar & Killen, 2003:32).

- ✓ ***Reliability*** (*cf*. 2.3.2) implies consistency in terms of how far the same test would give the same results if done by the same learners under the same conditions (Vandeyar & Killen, 2006:41). According to Du Toit and Vandeyar (2004:133), reliability means that the same assessment task, administered at different times by different persons, produces comparable results.

✓ With reference to the phrase *validity of assessment* (*cf*. 2.3.2.1), validity refers to the integrated evaluative judgment of the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of inferences and actions based on test scores or to the modes of assessments (Killen, 2003:1; Reddy, 2004:35; Ebbutt, 2006:4). Airansian (2001:423) and Vandeyar and Killen (2006:41) express validity as the degree to which assessment information permits correct interpretations of the desired kind.

✓ SAQA explains *fairness* (*cf*. 2.3.9) as taking account of and addressing issues pertaining to the inequality of opportunities, resources and appropriate teaching and learning approaches in terms of acquisition of knowledge, understanding and skills. Here, issues of bias in respect of ethnicity, gender, age, social class and race in the assessment approaches, instruments and materials are important. In addition, what is being assessed has to be clear (SAQA, 2001:16; Vandeyar & Killen, 2003:121).

✓ Heyns (2002:6) describes a *quality management system* as **the** grouping of procedures that are used to make sure that the amount of excellence that is indicated is reached (*cf*. 2.2.4).

✓ *Quality audits* are described as indicating the activities that are undertaken to measure the quality of products/ services that have already been made or delivered (Heyns, 2002:6; *cf*. 2.2.4).

✓ Heyns (2002:6) points out that *quality control* is referred to as a process undertaken by the person/s making the product – or delivering the service – for internal purposes (*cf*. 2.2.4).

✓ *Quality assurance* is defined by Heyns (2002:6) as describing the sum of activities that assure or ascertain the quality of products and services at the time of production or delivery (*cf*. 2.2.4).

- *Managing the quality of implementation in CTA*

✤ The National Curriculum Statement (Department of Education, 2007a), the National Assessment Policy (Department of Education, 2007c) and

the Schools Act (84 of 1996) refer to **implementation** as the putting into practice of assessment.

✤ In this study, **implementation** thus refers to carrying out the work, while managing problems relating to aspects such as logistics and unclear responsibilities in CTA.

1.5 RESEARCH METHODOLOGY

1.5.1 Research paradigm

In Chapter Four, the researcher of this thesis will analyse and discuss different paradigms, the importance of choosing a research paradigm, the suitability of each paradigm for this research, and the justification for the chosen paradigm for this research.

Mackenzie and Knipe (2006:4) indicate that the theoretical framework of a research study, as different from a theory, is sometimes referred to as the paradigm and influences the way knowledge is studied and interpreted. According to Burton and Bartlett (2009:18), a research paradigm is a model of research that reveals a general agreement on the nature of the world and how to investigate it. Within a paradigm, there would be a common consensus on the research methods that are appropriate and acceptable for gathering data and also those which are not satisfactory. A paradigm, then, is a network of coherent ideas about the nature of the world and of the purpose of researchers, which, adhered to by a group of researchers, conditions the patterns of their thinking and underpins their research actions (Burton & Bartlett, 2009:18).

It is the choice of paradigm that sets down the intent, motivation and expectations for the research.

The researcher of this thesis based her research framework on a positivist and post-positivist worldview (*cf*. 4.2). According to Creswell (2009:6), a research paradigm or a philosophical worldview is a basic set of beliefs that guide action. A movement called *positivism* expanded upon theories. Denying that one could get to a single explanation for all things, positivism tried to understand each of the many particulars in our universe *scientifically*. Since

nothing brings unity, everything is relative. There is no final standard or ultimate criterion of transcendent truth, so one might as well give up one's search (Creswell, 2009:7).

In general, the researcher followed a positivist paradigm, absorbed in keeping a non-interactive position while searching for new knowledge which would enable her to suggest reasons for her research outcomes (*cf.* 4.2.6).

The researcher decided on following a post-positivist paradigm for the smaller part of her research, because she wanted to gain multiple opinions from her research participants in order to strengthen her data collection and data analysis (*cf.* 4.2.7). By making use of also this paradigm, she recognized that there are limits to research. There is a need for more information before the researcher can proceed with research.

In Chapter Four the researcher takes a look at the place of a research paradigm in sound research, making sure to point out why it was necessary to place her study within the chosen paradigms (*cf.* 4.2).

1.5.2 Research phases

1.5.2.1 Literature review

The researcher of this thesis studied primary and secondary literature sources to gather information on Curriculum 2005, assessment and quality management. She used the following key words to conduct the literature search:

assessment; Common Task Assessment; CTA; management of quality assessment; authenticity, reliability and validity of assessment; fairness in assessments; forms of assessment; transparency in assessments; fitness purpose.

1.5.2.2 Empirical investigation

The empirical investigation comprised two phases: the literature review and the empirical research that is elucidated below.

1.5.3 Research design

Quantitative research, which included a small qualitative dimension (*cf.* 4.3.3.1), was conducted to gather information about the learners and educators' experiences and perceptions with regard to managing the quality of the design and the implementation of CTA in Grade 9 at Sedibeng-East and Sedibeng-West schools during 2009 (*cf.* Chapter Five).

Research designs used in both quantitative and qualitative approaches are discussed in detail in Chapter Four (*cf.* 4.3.3). In this sub-section, a justification of the employed design is provided.

In line with the positivist and post-positivist worldview indicated above, the researcher decided on a quantitative research design with a small dimension of qualitative research – which comprised a few open-ended questions (*cf.* Appendix H & Appendix I) to carry out this study. A quantitative study, according to Creswell (2009:6), is used for empirical observation, measurement and for theory verification. In this study the researcher used quantitative research for measuring perceptions.

Davies (2000:1) describes quantitative research as research that deals in numbers, logic and the objective. Quantitative research focuses on the left brain-objective, comfortable logic, numbers and unchanging static data and detailed, convergent reasoning rather than divergent reasoning, while qualitative research deals with the right brain – the hemisphere accountable for processing data as words, emotions, feelings, colour and music.

Whereas quantitative research generally knows exactly what it is looking for before the research begins, in qualitative research the focus of the study may become more apparent as time progresses (McGuigal, 2011:2).

However, in a quantitative approach, the researcher tests a theory by specifying a narrow hypothesis and collection of data to support or refute the hypothesis. The data are collected by means of an instrument that measures attitudes, and the information is analysed using statistical procedures and hypothesis-testing (McGuigal, 2011:3).

Davies (2000:1) describes quantitative research as research that deals in numbers, logic and the objective. Quantitative research focuses on the left

brain-objective, comfortable logic numbers and unchanging static data and detailed, convergent reasoning rather than divergent reasoning. Moreover, Hopkins (2000) points out that such a researcher collects numerical data from participants, analyses these numbers using statistics and conducts the inquiry in an unbiased objective manner. The intention of the researcher of this thesis in choosing a quantitative approach was to generalize to a wider population.

Using quantitative researcher involves noting a number of advantages and limitations, which the researcher acknowledges in Chapter Four (*cf.* 4.3.3.3).

The qualitative approach differs from a quantitative approach in that the researcher seeks to establish the meaning of a phenomenon from the views of participants (Creswell, 2009:16). McGuigal (2011:2) asserts that qualitative research is a much more subjective form of research, in which researchers allow themselves to introduce their own biases to help form a more complete picture. Based on this type of research which is qualitative in nature, it might be necessary, in situations where it is unclear exactly what is being looked for in a study, for the researcher to be able to determine what data are vital and what is not.

Gall *et al.* (1996:20) affirm that, in the opinion of some researchers, qualitative studies are best applied in discovering *themes and relationships at case level*, as quantitative studies are best applied in validating those themes and relationships in samples and populations. Looking from this perspective, qualitative research will play *a discovery role, while quantitative research plays a confirmatory role* (Gall *et al.*, 1996:20). A brief outline of these two methods of research are discussed and tabulated in a table in Chapter Four (*cf.* 4.3.3.2; Table 4.1).

This choice of a quantitative research design could limit data because it only works with numbers. In this thesis, however, a quantitative approach combined with a small dimension of qualitative research provided a more complete picture on the issue of the management of the quality of the design and implementation of CTA.

1.5.4 Strategy of inquiry

In the larger part of this study, the researcher made use of non-experimental, descriptive survey research (*cf.* 4.3.3.7). Creswell (2009:12) points out that survey research permits for a numeric description of a population's tendencies, outlooks or beliefs by focusing on a sample of that population. Survey research would take account of cross-sectional and longitudinal studies by using questionnaires or structured interviews when collecting data, with the purpose of generalizing from the sample to the population (Creswell, 2009:12).

The survey as a research method was chosen because it is also suitable to determine perceptions of educator and learner participants and draw conclusions from a momentary collection of data (Leedy & Ormrod, 2005:183-184).

Two significant advantages of choosing survey research are that (1) it is economical and (2) there is a rapid turnaround in data collection (Creswell, 2009:12). A disadvantage is that some people may intentionally misinterpret the facts in order to present a favourable impression to the researcher (Creswell, 2009:13).

In the smaller part of this study, the researcher made use of a phenomenological study (*cf.* 4.3.3.7). Creswell (2009:12-13) indicates that, in a phenomenological research process, researchers set aside their personal experiences so that they can get hold of those of their research participants.

Phenomenology as a research method was chosen because it was suitable to gain insight into the research participants' understanding of what is necessary for the smooth design, implementation and management of CTA.

1.5.5 Participant selection

Gauteng has a total of 468 public schools. In 2009, Gauteng had 120,156 Grade 9 learners There were 100 secondary schools in the Sedibeng districts in 2009, with Sedibeng-East having 55 and Sedibeng-West having 45. A list of all these schools was obtained from the districts and by means of systematic random sampling every second school was chosen as part of the sample (*cf.* 4.3.6.2), in order to remain unbiased during the selection. The researcher of

this thesis chose the Sedibeng area and its public schools because they were accessible to her, which implied that her sample selection of schools was done by means of convenient sampling (Maree & Pietersen, 2007a:177).

The researcher identified Grade 9 learners, because the CTA instrument was implemented only in Grade 9 and not in other grades. For the purpose of this study, Grade 9 learners of 2009 were used because they were the last group who underwent the CTA. There were 28 Grade 9 classes, approximately 982 learners and 170 educators, including Heads of Departments (HODs) for Economic Management Sciences (EMS).

In terms of the GDE policy and research approval, the research for this thesis was undertaken during the second and third term of the school calendar in 2010 and 2011.

The target population of this study comprised of secondary school Grade 11 learners who underwent CTA back in 2009 (N = 982), Grade 11 educators (N = 125) and HODs (N = 45) in the Sedibeng-East and Sedibeng-West districts who had experienced CTA in Grade 9 during 2009. A sample of school learners (n = 450), educators (n = 60) and HODs (n = 30) was randomly selected.

The researcher selected the Grade 11 learners because they were the ones who experienced the 2009 EMS CTA and the researcher would be able to gather their perceptions about the 2009 CTA. The focus was on the EMS CTA, because the researcher herself was an EMS educator. She had experienced the implementation of CTA in Grade 9 personally.

In summary, the researcher used the following sampling strategies in her study (*cf.* 4.3.6.2):

- Schools: convenient and systematic random sampling

- EMS learners, educators and HODs: purposive sampling

- Learners, educators and HODs: simple random sampling.

1.5.5.1   Pilot study

Both learner and educator questionnaires were pretested with a selected number of learner and educator participants from the target population who did not form part of the actual study sample regarding the qualities of measurement and/or appropriateness and to review them for clarity (Creswell, 2009:11). The pilot study's Cronbach alpha and inter-item correlation results are reported in Chapter Four (*cf.* 4.3.5.1) and the actual study's data are reported in Chapter Five (*cf.* 5.2).

1.5.6 Methods of data collection

1.5.6.1   Quantitative research of this thesis: questionnaires

The researcher chose to use two structured questionnaires as her research instruments for the quantitative phase of her research: one for educators; one for learners (*cf.* 4.3.3.7.

The perceptions of the educators and learners were measured by using closed Likert scale questions and open-ended questions (*cf.* Section B & C; Appendix I), a semantic differential scale (*cf.* Section D – Educator Questionnaire; Appendix H) and open-ended questions (Learner Questionnaire – *cf.* Appendix I; Educator Questionnaire – *cf.* Appendix H).

Ten multiple choice questionnaire items in C38 (Section C) investigated the challenges faced by educators when implementing CTA.

The purpose of the two questionnaires that were developed for this research was to establish:

- the knowledge of the educators and learners about the design, implementation and management of EMS CTA; and

- the perceptions educators and learners have regarding the status of the management of the design and implementation EMS CTA.

A more detailed discussion of the questionnaires as research instruments and the use of the Likert scales, a multiple choice question, a semantic differential scale and open-ended questions will be presented in the chapter on the research design: Chapter Four (*cf.* 4.3.4.1).

1.5.7 Data analysis and interpretation

According to Kruger and Neuman (2006:218), data analysis in the quantitative paradigm does not in itself provide answers to research questions. Answers are found by means of interpretation of the data and the results. To interpret is to elucidate and to find meaning. Analysis means the categorizing, ordering, manipulating and summarizing of data to obtain answers to research questions (Kruger & Neuman, 2006:2018). The purpose of analysis is to lessen data to an intelligible and interpretable form so that the relations of research problems can be studied and tested and conclusions can be drawn (Kruger & Neuman, 2005:218).

The data for this study was analysed by an independent statistician using the statistical package SPSS. SPSS stands for *Statistical Package for the Social Sciences*. The statistical services of the North-West University, Vaal Triangle Campus, were approached for aid in the analysis and interpretation of data collected from the questionnaires.

Descriptive statistics

By means of descriptive statistics, data were organized and summarized to encourage an understanding of the data characteristics (Pietersen & Maree, 2007c:195).

Each section of the questionnaire focused on a particular construct in relation to the management of the design and implementation of CTA. Although some of the learner and educator questionnaires focused on similar issues, the questions were phrased differently to suit the relevant group. A factor analysis was used to obtain a finer clustering of the questionnaire items (*cf.* 4.3.5.2).

The data for the responses were summarized with frequencies, means and percentages. Graphical depictions were provided to highlight visually the prominent characteristics that radiated from the responses (Pietersen & Maree, 2007c:185).

Inferential statistics

In order to move beyond a summary of the data, inferential statistics were used.

In order to determine whether any statistically significant differences between the educator and learner responses were obtained from the questionnaire, the responses were compared on the mean scores for each of the questionnaire sections. T-tests were utilized to establish whether differences that occurred were statistically significant (Pietersen & Maree, 2007a:230). A comparison was done concerning questions that were similar on learner and educator questionnaires in Section B (design) and Section C (implementation) of CTA.

To determine the effect size of the statistical significant difference, Cohen's D was calculated and the effect sizes were interpreted as follows (Cohen, in Pietersen & Maree, 2007d:211):

0.2 – small effect size

0.5 – medium effect size

0.8 – large effect size

Associations between learner and educator responses were also established by means of a Chi-square and Cramer's V (*cf.* 4.3.7.2; Chapter Five).

As pointed out by Leech *et al.* (2008:244), Chi-square is a way of determining if a statistically meaningful relationship exists between two nominal variables: such a test matches the real and expected frequencies of each cell in order to test if the expected values vary meaningfully from the real values. The same authors (Leech *et al.*, 2008:244) describe Cramer's V as allowing researchers to calculate correlation in tables which have more than 2 x 2 rows and columns: the test is used to determine the strengths, or effect sizes, of the relationships after chi-square has determined the statistical significance (Cramér, 1999:112).

The use of inferential statistics is explained further in Chapter Four (*cf.* 4.3.7.2).

1.5.8 Reliability and validity of the quantitative study

Reliability was guaranteed by conducting a pilot study and determining Cronbach alpha coefficients and inter-item correlations (*cf.* 4.3.5.1). In order to enhance validity, criteria for validity of the quantitative research design, as well as for the data collection instrument, were adhered to. How the

researcher complied with criteria for validity and reliability is explained in Chapter Four (*cf.* 4.3.5.1 & 4.3.5.2).

1.5.9 Trustworthiness of the qualitative study

Trustworthiness of the qualitative data was guaranteed by adhering to criteria for credibility, conformity, transferability and dependability. How the researcher adhered to the criteria for trustworthiness is explained in Chapter Four (*cf.* 4.3.5.2).

1.5.10 Ethical considerations

In the context of this research the researcher complied with the ethical principles related to the following: ethical principles in the research questionnaire, data collection, data analysis and interpretation, and disseminating the research (Creswell, 2009:85-92). Examples of how the ethical principles were applied to the context of this study are provided in Chapter Four (*cf.* 4.3.9).

1.6 SUGGESTED GUIDELINES AS PART OF A MANAGEMENT INTERVENTION PLAN TO IMPROVE THE QUALITY OF THE DESIGN AND IMPLEMENTATION OF SCHOOL-BASED ASSESSMENT

Based on the findings of the research, the researcher of this thesis developed a plan which will help to manage the quality of the design and implementation of school-based assessment. Although the plan was linked to the data interpretation based on the CTA in Chapter Five, relevant findings were utilized to structure guidelines for assessment in the context of CAPS.

1.7 POSSIBLE CONTRIBUTIONS OF THE STUDY

At the beginning, the study focused on the improvement in the quality of managing the designing and the implementation of CTAs at schools in Sedibeng-East and Sedibeng-West. While the role of the school principal in developing management skills of his/her management subordinates is recognized, cognizance is taken of the fact that school principals have not been trained specifically to conduct management and design the quality of CTAs. This study could then also be true of managing the design and implementation of the new CAPS.

Therefore this study focused on suggesting guidelines towards a management intervention plan to be used at schools in the Sedibeng-East and Sedibeng-West Districts to improve quality management of the design and the implementation of school-based assessment as indicated by CAPS. Principals, deputy-principals and Heads of Departments could make use of this plan.

The suggested guidelines towards a management intervention plan (*cf.* Chapter Six) was informed by the new education system's vision which enshrines democratic principles of transparency and participating management: in this regard several documents need to be read together from now on (Department of Basic Education, 2011). These documents would include the National Curriculum Statement (Department of Education, 2007a) that informed the discontinued CTA.

1.8 CHALLENGES OF THE STUDY

There were challenges in terms of the educator sample because at most schools one finds a maximum of three EMS educators. This challenge contributed to adding another school district as a population to this study when the Department of Education was approached for using the first district. At first, not all the educator participants in the Sedibeng-East district completed the questionnaire fully and some schools were not willing to participate. This challenge contributed to adding another school district as population to this study. To deal with the initial low return rate of the questionnaire, the researcher decided to make appointments with the EMS educators and the HODs in order to obtain their cooperation at a more personal level. It was difficult to get hold of the statistics from the district offices at Sedibeng-East and Sedibeng-West, but through repeated efforts and with perseverance, the researcher managed this in the long run.

1.9 DIVISION OF CHAPTERS

With regard to the demarcation of chapters, the researcher discussed the contents of this study in seven chapters.

CHAPTER ONE   AN ORIENTATION TO THE STUDY

The first chapter deals with presenting the background to the study, focusing on all the main components.

CHAPTER TWO   QUALITY MANAGEMENT IN THE DESIGN OF COMMON TASK ASSESSMENT

Chapter Two consists of part one of the literature review: focusing on quality management in the design of CTA.

CHAPTER THREE   QUALITY MANAGEMENT IN THE IMPLEMENTATION OF COMMON TASK ASSESSMENT

This chapter deals with part two of the literature review by focusing on managing the quality of the implementation of CTA.

CHAPTER FOUR   EMPIRICAL RESEARCH DESIGN

Chapter Four contains detailed information on the quantitative research design, data collection methodologies and data analysis procedures.

CHAPTER FIVE   DATA ANALYSIS AND INTERPRETATION

The quantitative analysis and interpretation of the gathered data are presented in detail. Thereafter the focus turns to the reporting and interpretation of the small dimension of qualitative data that was gathered.

CHAPTER SIX   GUIDELINES TOWARDS A MANAGEMENT INTERVENTION PLAN FOR IMPROVING THE DESIGN AND IMPLEMENTATION OF SCHOOL-BASED ASSESSMENT

This chapter suggests novel guidelines towards a plan to manage the quality of the design and implementation of school-based assessment at Sedibeng-East and Sedibeng–West schools.

CHAPTER SEVEN   SUMMARY, FINDINGS AND RECOMMENDATIONS

The final chapter concludes the research study by pointing out which important findings and significant recommendations could be made.

1.10 SUMMARY

In this chapter, the researcher provided an orientation of the planned research study. Firstly, an overview of the relevant literature was given in order to validate the research problem (*cf.* 1.1). This was done by discussing the changes according to the Constitution with regard to education in South Africa, and legislation and policy with regard to how assessment should be carried out (*cf.* 1.1.), specifically in the South African context (*cf.* 1.1).

The purpose statement of the study was worded, indicating that the researcher intended to obtain a perspective on how managing the design and implementation of CTA is presently managed at Sedibeng-East and Sedibeng-West schools (*cf.* 1.*2*). The primary research question was indicated (*cf.* 1.3.1) and from this question, as well as from the background provided (*cf.* 1.1), secondary research questions were formulated (*cf.* 1.3.2).

The conceptual framework on which the study was grounded, namely that of establishing the fact that a very specific societal relationship exists within a school, was formulated (*cf.* 1.4.1 & 1.4.2). Moreover, central concepts were clarified in the context of this study: quality management; CTA design; CTA development and implementation; assessment tasks; common task assessment; CTA instrument; management; and quality (*cf.* 1.4.2.1).

Furthermore, the research methodology was described, by firstly indicating the research paradigm as based on a positivist and postpositivist worldview (*cf.* 1.5.1). Secondly, the research phases, literature review and empirical investigation, were pointed out (*cf.* 1.5.2). In the third place, the research design was indicated as comprising of quantitative research, with a small dimension of qualitative research (*cf.* 1.5.3). Fourthly, the strategies of inquiry were pointed out as being largely non-experimental, descriptive survey research with a small phenomenological study (*cf.* 1.5.4). In the fifth place, the selection of the research participants was discussed: the learner participants would be the Grade 11 learners who had completed EMS CTA in 2009 and the educator participants would be the Grade 9 EMS educators (*cf.* 1.5.5).

Likewise, the method of data collection was indicated (*cf.* 1.5.6). The quantitative research would be conducted by using two structured questionnaires, one for the learners and one for the educators, consisting of closed Likert scale and semantic scale questions and open-ended questions (*cf.* 1.5.6.1).

Attention was paid to the data analysis and interpretation, indicating the use of descriptive statistics in order to summarize the gathered data with frequencies and percentages. With the aim of determining whether there were statistical differences between responses, the use of inferential statistics made it possible to compare the learner and educator responses on the mean scores for each of the questionnaire sections (*cf.* 1.5.7). T-tests, Cohen's D, factor analysis and chi-square were also utilized.

Reliability and validity of the quantitative study were dealt with briefly (*cf.* 1.5.8): the use of a pilot test, Cronbach alpha coefficients and inter-item correlations was pointed out in order to guarantee reliability. For the sake of enhancing validity, the importance of adhering to criteria for validity of the quantitative research design and for the data collection instrument, was indicated.

Trustworthiness of the qualitative study was discussed, by referring to guaranteeing such trustworthiness by observing criteria for credibility, transferability, confirmability and dependability (*cf.* 1.5.9).

Ethical aspects such as the ethical principles in the research question, the data collection, the data analysis and interpretation, and disseminating the research were considered (*cf.* 1.5.10).

The researcher pointed out her intent to suggest a plan to manage the quality of the design and implementation of CTA (*cf.* 1.6) and indicated possible contributions of the study as transcending the context of CTA to all school-based assessment *(cf.* 1.7).

Challenges that became apparent during the research were referred to (*cf.* 1.8) and the chapter division of this thesis was provided (*cf.* 1.9).

In the next chapter, Chapter Two, quality management in the design of common task assessment will be presented.