

**In Search of Deep Change:  
A Study of the Implementation of Assessment Policy in  
South African Schools**

by

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Date: \_\_\_\_\_

**I dedicate this dissertation to**

**Nirvaan Somers**

**My Son**

**My Inspirational Change Force**

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## SUMMARY

Why has teachers' classroom work remained relatively stable despite an enormous amount of change in educational policy? In 1998 the national Department of Education of South Africa introduced a new policy on assessment to complement its new curriculum policy introduced in 1997. With its emphasis on performance-based outcomes, the assessment policy constituted a decisive and significant break from the past assessment policy. This research focuses on the implementation of the new assessment policy by classroom teachers. The study is guided by the following three research questions:

- 1: *What are teacher understandings and beliefs with regard to assessment policy?***
- 2: *In the context of official policy, how do teachers practice assessment in their classrooms?***
- 3: *How can the continuities and the discontinuities between official policy on assessment and teachers' assessment practice be explained?***

After reviewing the literature on policy implementation, the study articulated a broader conceptual framework drawing on the construct of 'deep change'. This perspective supplements rather than supplants dominant approaches to policy implementation. The 'deep change' framework suggests a more incisive approach to understanding the relationship between policy and practice.

This study presents and tests three propositions about change, namely:

**Proposition One:** That teachers may not have a deep, sophisticated understanding of a new assessment policy even if there is evidence of strong rhetorical commitment to the policy.

**Proposition Two:** That teachers may not be able to reconcile their own assessment beliefs and capacities with the stated goals of a new assessment policy.

**Proposition Three:** That teachers may find traditional assessment practices (that is, examinations and testing) to hold greater efficacy in the classroom than the alternatives required by a new assessment policy.

A case study approach was undertaken with two Grade 8 science teachers from two different contexts, one from an under-resourced township school, and the other from a well-resourced urban school. Using evidence from questionnaires, free-writing schedules, extensive pre-lesson and post-lesson interviews, prolonged non-participant classroom observations, teacher

records and documents, and student records and examinations, the study found that the two teachers had a surface understanding of the new assessment policy; the teacher from the well-resourced, urban school was able to implement some of the new assessment methods, while the teacher from the under-resourced, township school did not implement any of the new methods of assessment required by the new assessment policy; both teachers were unable to reconcile their own assessment beliefs and capacities with the stated goals of a new assessment policy; and both teachers found the traditional assessment practices (that is, examinations and testing) to hold greater efficacy in the classroom than the alternatives required by a new assessment policy.

In other words, the study found that teachers did not have a deep understanding of the assessment policy and did not change their assessment practices deeply as required by the assessment policy. The study argues that educational policies will do little to achieve deep changes in teachers' pedagogical practices without concurrent attention to a strong theory of change. The study concludes with implications for teacher learning, professional development of teachers, theory and research.

**Key words:** assessment reform, education policy change, education policy implementation, deep change, teacher change, theory of education, theory of change.

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## CHAPTER ONE

### The Implementation of Assessment Policy in South African Schools

#### Introduction and Overview

*The policies we required ...are firmly in place. The task we will all face during the next decade ahead will be to ensure vigorous implementation of these policies...<sup>1</sup>*

#### Introduction

In December 1998 the national Department of Education released a new assessment policy that was modelled on its flagship curriculum, called Curriculum 2005. The new curriculum had been released in 1996 for phased-in implementation in the schooling sector comprising Grades R (5-6 year olds) to 9 (14-15 year olds). At the time of this study (2002), both the new curriculum policy and the new assessment policy were in operation in all grades except Grade 6.

The new assessment policy expected teachers to alter their assessment practices in fundamental ways. For example, teachers were expected to use clearly defined outcomes as the basis for evaluating student work, to define clearly what students are to learn, to make the purposes of assessment clear, and to use multiple assessment tools, techniques and methods -- such as self-assessment, journals, peer assessment and projects. In addition, teachers were required to simultaneously introduce continuous and authentic assessment, and to ensure that assessment was objective, valid, manageable and sensitive to gender, race and disability (Department of Education, 1998). This new method of assessment departed radically from the assessment regime under the *apartheid* education system, one that relied heavily on tests and examinations as final judgments on student performance.

The purpose of the new assessment policy comported with the progressive orientation of other educational policies issued by the first democratic government of South

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<sup>1</sup> From the State of the Nation Address of the President of South Africa, Thabo Mbeki, Houses of Parliament, Cape Town, 6 February 2004, emphasis added.

Africa, namely “to uproot old practices, beliefs, values about the social order and to replace them with new ways of conducting national business” (Manganyi, 2001:28). It is within this new policy context that this research study is located, the purpose of which is to examine teacher understandings and beliefs about the new assessment policy, to explore how they implement/do not implement this policy in their classrooms, and to explain the continuities and discontinuities between the new assessment policy and the assessment practices. The research is situated in the tradition of policy implementation studies, and broadly seeks to understand the relationship between policy and practice in the context of assessment reform.

### Rationale

I was drawn to this study by multiple rationales. First, was my interest and experience as a policy maker required to oversee and support the implementation of educational policies in public schools. In this context I found myself responding to the challenge posed by Allington (2000:17), who charged that: “it is surprising how little attention policy makers seem to have paid to the implementation process”. Second, the Ministerial Review Committee on Curriculum 2005<sup>2</sup> (Chisholm, 2000), reported a lack of alignment between the curriculum policy and the assessment policy, and that there had been a lack of clarity with regard to assessment requirements. This Review Team did not, however, conduct a detailed study of the new assessment policy. Research conducted by the Centre for Education Policy Development, Evaluation and Management (CEPD) (see CEPD, 2000, 2001, 2002) also reported that teachers struggled with issues of assessment, although these studies did not conduct sustained investigation into assessment policy and implementation. This lack of empirical work on assessment policy reform and implementation in the South African context further motivated this inquiry.

A further motivation for conducting this research was that the school improvement movement had not paid sufficient attention to the issue of assessment policy or practice. For example, an eminent proponent of school improvement, Hopkins

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<sup>2</sup> In 1999, the second democratic Minister of Education of South Africa had commissioned the review of the new curriculum for schooling, named Curriculum 2005 that had been introduced in 1997 by the first democratic government of South Africa.

(2002:2) argues that “real” improvement is achieved by modifying classroom practice and by adapting the organizational or management arrangements within the school to support teaching and learning. No mention is made of assessment. This lack of a concentrated focus on assessment in the policy research literature led me to select the policy on assessment for further study because assessment has provided the impetus for major educational reform efforts worldwide (see Black and William, 1998a, 1998b; Harlen et al., 1998; Pryor and Akwesi, 1998; Rothman, 1995; Taylor and Vinjevoold, 1999).

The literature on policy implementation points to an intractable problem – the distance or gap between policy intentions and policy outcomes. Policy implementation scholars offered competing theories explaining the dissonance between education policy and teachers’ classroom practice. However, the limitation of these accounts in much of the literature is in the assumption that change is achieved when the surface features of change are observable or measurable, for example, improvements in test scores or changes in teacher behaviours. I argue that such perspectives are inadequate because surface measures of change cannot probe for the depth or test the sustainability of change since only external performance is being assessed and not changes in beliefs, emotions, attitudes, values and, of course, knowledge and skills across contexts. This gap in the literature also fuelled my interest in this study to seek a different theoretical frame for understanding the relationship between the new assessment policy and its implementation/non-implementation by classroom teachers. I also wished to add and contribute to the theoretical basket of explanations for understanding policy implementation, especially in developing country contexts. The study proposes an alternative conceptual framework for understanding and explaining policy implementation/non-implementation by classroom teachers.

The crucial importance of policy implementation is highlighted in the quotation provided at the beginning of this chapter, made by the President of South Africa. But this does not mean that policies will necessarily be implemented because of political statements, however important they may be. Policy implementation, a process of realizing policy goals in practice, is not as simple as it may seemingly appear in the

presidential quotation. With such political directives Maina and Muliro (2001) in Ward et al (2003:135) argue that:

*These 'grand scheme' announcements ...carry with them the weight of political imperative. However, as ex cathedra directives they are rarely linked to any real tangible output...*

I agree that the implementation of policies is important, but its success at the level of practice has been less than favourable. And as I have indicated various theories exist that explain the problems relating to policy implementation. I add to this body of theoretical explanations.

### The Conceptual Framework for the study

The study represents a theoretical experiment designed to explain policy implementation/non-implementation using the construct of deep change. The conceptual framework on deep change recognises different kinds of change such as non-change, superficial change, temporary or unsustainable change, mechanical change, incremental change and deep change. Deploying this conceptual framework, the study argues that for the successful implementation of the new assessment policy teachers need to change deeply. Following the logic of the conceptual framework, the study contends that deep change results when the theory of education underpinning the policy is strong, and accompanied by an equally strong theory of change. Arising from the conceptual framework the study posits three propositions, namely:

*Proposition One: Teachers may not have a deep, sophisticated understanding of a new assessment policy, even if there is evidence of strong rhetorical commitment to this policy.*

*Proposition Two: Teachers may not be able to reconcile their own assessment beliefs and capacities with the stated goals of a new assessment policy.*

*Proposition Three: Teachers may find that traditional assessment practices (that is, examinations and testing) hold greater efficacy in the classrooms than the alternatives required by a new assessment policy.*

The study subjects these propositions to empirical and theoretical verification using the data from the two case study reports, the conceptual framework on 'deep change'

and the new requirements as signalled in the new assessment policy of the South African government.

### The Methodological Plan of the Study

A qualitative, descriptive and exploratory case study approach was utilized for this study. The approach was informed by the three research questions that guided the study, namely:

1. *What are teacher understandings and beliefs with regard to new official assessment policy?*
2. *In the context of official policy, how do teachers practice assessment in their classrooms?*
3. *How can the continuities and discontinuities between official policy on assessment and teachers' assessment practice be explained?*

I chose the purposive sampling method in that only teachers who were willing and able to participate were included in the study. This sample included two secondary school teachers, each teaching Grade 8 Natural Science, from two different schools; one from a well-resourced urban school and another from an under-resourced township school. A variety of methods and tools were used to collect data for the study, including questionnaires, free-writing schedules, pre- and post-classroom observation interviews, non-participant classroom observations, assessment-related documents from the case study teachers, and records of the case study teachers and observed students. These methods and tools were subjected to peer-review as means of conferring rigour, credibility and confidence in the study. In addition, the research instruments were pilot tested with two teachers. The feedback received from peers as well as from the pilot process led to adjustments in both the broad research strategy and the specific research instruments.

The interviews were audio-taped and transcribed. The two teachers were given a chance to comment on the contents of the transcripts. I prepared comprehensive reports after each classroom observation and these reports were also given to each teacher for comment. I utilized the process of methodological triangulation to further

strengthen the validity of my findings. I employed the assistance of a critical friend to externally review the completed case reports of each teacher as a further step in establishing validity of the research process. I tested each proposition by the analysis arising from comparing each case study report of the two teachers, within the conceptual framework on deep change as it applied to the new assessment policy.

### Limitations of the study

The study identifies many shortcomings. As a researcher, I had been the primary instrument for the collection and analysis of the data in this case study; this leaves the possibility of researcher bias being introduced into the research study. Questions relating to ethics, reliability, lack of rigour and validity become relevant in such an instance. I responded by employing strategies described above, such as allowing the two teachers access to the transcribed interviews and reports on classroom observations, using methodological triangulation, and seeking a critical reader to evaluate the case reports.

Case studies provide little basis for making scientific generalisations. I made the purpose of the research study explicit, that is, to explore and interpret the findings in the particular contexts of investigation, that is, in relation to the two teachers being studied. The study can be “generalizable to theoretical propositions” (Yin, 1994: 10) but obviously not to all teachers and to all schools.

The policy itself is being taken as given, that is, it is not being conceptually critiqued, but the validity of policy intention in terms of its implementation was being investigated. It may seem that policy implementation is seen as being separate from the policy process. I make it explicit that I embrace an integrated view of policy, that policy implementation is part of the policy making process. But the focus of this study is on policy implementation.

This qualitative case study resulted in voluminous amounts of data that needed to be managed and secured properly. Slippage can be costly in terms of continuity essential for the coherence of the study. For each set of data from each teacher, I created a logical case study database that was safely and methodically stored but easily

retrievable. I also made manual and electronic copies of each case study database and stored them in three different places for safekeeping.

This study does not provide strategies on how to facilitate deep change among teachers. In other words, it lacks an agenda for action. I respond to this potential criticism by raising questions for ongoing policy research.

### The significance of the study

The educational research literature on policy implementation is replete with evidence showing that most policy reform efforts that have sought to significantly alter the accepted patterns of schooling have emerged as shadows of their original intent. Many studies have attempted to account for this “paradox of change without difference” (Woodbury and Gess-Newsome: 2002: 763). However, such accounts tend to assume that change is achieved when the surface features of change are observable or measurable. This study argues that this perspective is inadequate because such measures of change cannot test for the depth and sustainability of change. This study provides a different theoretical analysis for understanding the relationship between the new assessment policy and its implementation/non-implementation by classroom teachers. In advancing a new theoretical perspective, I attempt to add new scholarly understandings and insights on the policy-practice dilemma in educational settings. The study also raises questions related to the depth and sustainability of educational policy reforms, with implications for theory, practice and (policy) research.

## OVERVIEW OF THE DISSERTATION

**Chapter One**, this chapter, presented the research problem, namely, understanding the relationship between policy and practice. It also explains the rationale, the conceptual framework and the methodological plan for the study. The chapter explains how validity had been established in the research process, as well as identified limitations in the study and how this was addressed. The chapter highlights the significance of the study in terms of offering a broader theoretical framework for

understanding the relationship between policy and practice and its significance for both theory and further inquiry.

**Chapter Two** explores the literature on policy implementation in both developed and developing countries. The chapter found that many of the explanations offered for the gap between policy and practice were inadequate in that they assumed that change is achieved when the surface features of change are observable. The chapter suggests and articulates a new theoretical framework that may more adequately account for the deep changes expected of teachers for the successful implementation of new policies.

**Chapter Three** presents a broader theoretical framework, referred to as ‘deep change’ to understand and explain the relationship between policy and practice. The chapter distinguishes amongst different kinds of change such as non-change, superficial change, temporary or unsustainable change, mechanical change and deep change. This framework suggests that for the successful implementation of a new assessment policy, teachers need to change deeply. It also suggests factors that could lead to deep changes in teachers. The chapter advances three propositions on change which is tested in this study. How the framework on deep change is used to test the propositions is also described in this chapter.

**Chapter Four** describes the research design and methodology chosen to explore the three critical research questions in the study. A qualitative, descriptive and exploratory case study approach was utilized. Two teachers represented the sample, each teaching Grade 8 Natural Science, one from a well-resourced urban school, and another from an under-resourced township school. A variety of methods and tools were used to collect data for the study including questionnaires, free writing schedules, pre- and post-classroom observation interviews, non-participant classroom observations, assessment related documents from the case study teachers, and records of the case study teachers and observed students. This methodology resulted in the compilation of case study reports for each teacher.

In **Chapters Five and Six** I describe each teacher’s personal and professional profiles as well as descriptions of the schools and the observed classes. I report on each teacher’s understandings and beliefs about the new assessment policy and how each

teacher practised assessment in the classroom. The chapters also begin to analyse and interpret the data against the propositions made. I engage in this preliminary analysis as a foundation to Chapter Eight of this dissertation.

**Chapter Seven** compares the two teachers' understandings and beliefs about the new assessment policy against the backdrop of their assessment practices. The cross-case analysis raises fundamental conceptual and procedural questions emerging from the observation of convergence and divergence between the two teachers' understandings and beliefs about the assessment policy and their assessment practices. These questions set an agenda for Chapter Eight of this study.

In **Chapter Eight**, the final chapter of the study, I provide possible explanations for the observed assessment practices of each of the two teachers. This is in response to the third research question of the study: *How can the continuities and discontinuities between official policy on assessment and teachers' assessment practice be explained?* I present the argument or thesis of the study and its implications for further research and enquiry. My argument is situated against the rationale of the study described in Chapter One, the literature review explored in Chapter Two and the conceptual framework developed in Chapter Three. In testing the propositions I suggest that the teachers in the study had a surface understanding of the new assessment policy, and that they were unable to reconcile their own assessment beliefs and capacities with the stated goals of the new assessment policy. I suggest that teachers need to change deeply in order to realise new policy objectives. And in order to facilitate such changes I argue that policymakers need to construct policies underpinned by a strong theory of education and driven by an equally strong theory of change.

In the next chapter I review the literature on policy implementation.

## CHAPTER TWO

### Review of the Literature

#### *Problems arise when it comes to implementation of the policy<sup>1</sup>*

In this chapter I survey the literature, drawing principally on the research dealing with policy implementation. I made the decision to concentrate on the general research on policy implementation in order to seek new interpretations and deeper understandings of the relationship between educational policy and classroom practice. The literature provided the conceptual basis for data collection plan, the research instruments used in this study, and the framework for the analysis of the data. The literature review emerged as a response to the targeted research questions in the study, which seeks to examine teacher understandings and beliefs about a new assessment policy, and to evaluate their classroom practices in relation to this assessment policy.

The knowledge base on policy implementation in the context of educational change and reform is formidable, and it is insightful for examining and understanding the relationship between macro-level policies and micro-level or classroom practice. Research on educational reform and policy implementation has been, and still is, the subject of substantial volume of research, debate and analysis among scholars both in developing and developed countries (see Angula and Grant-Lewis, 1997; Chisholm, 2000; Christie, 1998; Cohen 1990; Cohen and Ball, 1999; Cuban, 1988, 1993, 1999; Dunn, 2003; Elmore, 1996; Fullan, 1991, 1993, 1999a, 1999b, 2000, 2001, 2003; Fullan and Hargreaves, 1992; Hargreaves, 1994; Hargreaves, Earl and Ryan, 1996; Hargreaves, et al 1998; Jansen, 1998a, 1998b, 1999a; 1999b; 1999c; 2001a, 2001b., 2002; Jansen and Christie, 1999; Newman and Wehlage, 1995; Reimers and McGinn, 1997; Sarason, 1990; Sayed & Jansen, 2001; Stigler and Hiebert, 1999; Spillane, et al., 2002; Stoll and Fink, 1996; Taylor and Vinjevold, 1999; Tyack & Cuban, 1995; Ward, et. al., 2003). Many of these studies claim that policy reforms designed to improve the quality of schooling have been more rhetorical than substantive in their impact in classrooms and schools, thus exposing the dissonance between policy

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<sup>1</sup> Excerpt from the interview with one of the case study teachers

intention and policy outcomes at the level of practice. In other words they show that policy is not self-executing. For example, Jansen (2002: 199) observes:

*[Despite] unprecedented investments in policymaking and policy production ...in South Africa, there appears to be very little change in the daily routines of schools and classrooms of the nation.*

Most reform efforts that have sought to significantly alter the status quo of schooling have been either adapted to fit what existed or sloughed off, allowing the system to remain essentially untouched (Cuban, 1988). Similarly, Elmore (1996: 1) argues:

*Innovations that require large scale changes in the core of educational practices seldom penetrate more than a small fraction of U.S. schools and classrooms, and seldom lasts for very long when they do.*

Many educational policy studies attempted to provide explanations for the policy gaps. For example, Jansen (2001) invokes the construct of ‘political symbolism’ to argue that the failure of policy is a direct result of the over-investment of the state in the political symbolism of policy rather than in its practical implementation, (see also Smith et al., 2004). Jansen (2002: 200) theorizes:

*Every single case of education policymaking demonstrates, in different ways, the preoccupation of the state with settling policy struggles in the political domain rather than in the realm of practice.*

Fullan (2001) argued that a large part of the problem is more a question of the difficulties related to planning and coordinating a multilevel social process involving thousands of people, who are much more unpredictable and difficult to deal with than with things such as policy. Angula and Grant-Lewis (1997) ascribe implementation problems to the overstretching of the system that was operating on many reform fronts, a lack of will to act, limited understanding and skills, and lack of support. Reimers and McGinn (1997) contend that policies fail because conditions to facilitate dialogue and organizational learning were absent. Other research on the implementation of policy indicates that policy ideas rarely translate unproblematically into classroom practice, and that implementers often undermine or alter policy intentions (Garn, 1999). This supports prior research that revealed that innovations were seldom implemented in the classroom in exactly the same way that the developers had intended (Elmore & Sykes, 1992). Allington (200:12) summarised his

findings on the studies of policy implementation as “few policies are faithfully implemented”. He used the concept of “policy collisions” (ibid) to describe the contradictory mandates produced by policy. Familiarity with this litany of unsuccessful educational reform efforts or policy slippages during the implementation process is valuable for this study as it would enable me to recognize, consider and retain the messiness and complexity of policy implementation.

It is insightful and relevant to my study to use the work of McLaughlin (1998: 70-84) who, in the context of the Rand Change Agent Study in the USA, investigated how federal education policies whose intent was to stimulate change in local practices, made their way through levels of government and practice. McLaughlin (1998) reported that as officials at various levels of the policy system responded to new education policies of the government, “implementation issues were revealed in all their complexity, intractability, and inevitably” (p.70). The issues surrounding the dilemma of translating educational policies into classroom practice are certainly not new. The problem and complexity of implementing policies was first described in the early 1970s by Jeffrey Pressman and Aaron Wildavsky who, in their investigation on the complexities of policy implementation, found that implementers did not always do as they were told, nor did they always act to maximize the policy objectives, but “responded in what often seemed quite idiosyncratic, frustratingly unpredictable, if not downright resistant ways” (p.70). This resulted in outcomes not only contrary to policy expectations, but also to enormous variability (ibid). McLaughlin observed:

*[It] is exceedingly difficult for policy to change practice, especially across levels of government. Contrary to the 1:1 relationship assumed to exist between policy and practice, the Change Agent Study demonstrated that the nature, amount, and pace of change at the local level was a product of local factors that were largely beyond the control of higher-level policy makers.*

(p71, emphasis in original)

This finding challenges the theory that enhanced inputs, namely more money or better policies would result in improved practice at the local level, as well as the assumption that a direct or linear relationship existed between policy and practice (ibid). McLaughlin also noted that policies ignored the “black box” of local practices, beliefs and traditions (p71) Furthermore, she noted that the dynamic, changing nature of local

factors over time produced strategically and substantively different contexts for policy (ibid.). One of the conclusions of the Rand Study was that the outcome of policy “depends on how policy is interpreted and transformed at each point in the process, and finally on the response of the individual at the end of the line” (p72). This resonates with the observations made by Bowe et al. (1992) in Looney (2001:157) that “policies will be interpreted differently as the histories, experiences, values, purposes and interests, which make up an arena, differ. The simple point is that policy makers cannot control the meanings teachers make of policies. Similarly, Darling-Hammond (1998) claims that policy is re-invented at each level of the system and that what finally happens in classrooms and schools is related more to the beliefs, knowledge, resources, motivation and leadership operating at the local level than is related to the intentions of the policy-makers. Allington (2000) supports such views that the implementation of educational policies entails translation of the policy by individual teachers. Elmore (1983) refers to this view about the fundamental importance of classroom teachers understanding, interpreting and translating policy to practice as “the power of the bottom over the top”. Fullan (2001) similarly contends that changes in understandings and beliefs, which he refers to as ‘first principles’, are the foundation of achieving sustainable reform. The above review is relevant and valuable to this research study that seeks to explore, examine and explain teachers’ understanding and beliefs of a new policy on assessment.

Understanding change is related to capacity and the will to change, the two critical variables identified by McLaughlin (1998:72) in affecting the outcomes of the implementation process. Furthermore, if policy gets interpreted, transformed or re-invented from one level to another, as indicated, it suggests that in the South African context, policies will get transformed or re-invented as it passes through the various levels of bureaucracy, namely from national level to provincial level to district level to the school level and finally to the classroom level – four bureaucratic levels of interpretation. If one follows the logic of re-invention above, the implication is that the policy interpreted by the classroom teacher would be substantially different from that of the policy-maker at national level: political will and local capacity will play themselves out here because will and capacity are not neutral concepts. They are loaded with different ideologies, values and belief systems. Relevant to this line of

thought is the observation by Manganyi<sup>2</sup> (2001:28) that in South Africa there are complex political, attitudinal, economic and even psychological forces at work, the interplay of which determine the depth, scale and sustainability of change. This observation finds resonance with the observation that policy, including implementation is not devoid of politics, power, competing interests and conflicting struggles (Jansen, 2001a:271). This means that these forces could shape the understanding, interpretation, transformation and implementation of policies by classroom teachers. Furthermore local capacity and will not only are beyond the reach of policy, they change over time (McLaughlin, 1998).

Another conclusion of the Rand Study was that “implementation signals mutual adaptation” (McLaughlin, 1998:73). This suggests that the policy and local realities undergo mutual adaptation, which the study regards as useful since local factors are recognized in integrating and shaping policy and practice. The study claims that adaptation and variability are good. Glaser (1991) concurs that adaptation can provide for a range of opportunities for success. Mutual adaptation suggests a dialectical relationship between policy and practice as opposed to a direct relationship where policy and practice are dichotomised. My concern about mutual adaptation relates to the possibility of deliberate distortion of policy objectives and local realities by competing interest groups under the guise of adaptation, thereby undermining and subverting the goals of the educational reform and transformation agenda. I am also concerned about the extent to which adaptations could compromise the quality of implementation and its corresponding implications for achieving equity in education. The Rand Study also emphasized the critical role of local implementation and the ‘street level bureaucrats’ who decide about classroom practice (McLaughlin, 1998). Fullan (1993: 77), in arguing that “the actions of the teachers, the frontline agents of change, are critical to successful implementation” supports this. Malcolm (2001:200) also supports this view when he states that teachers are agents who are closest to learners, who work at the critical interface of teaching, learning and assessment. I agree with this view of the critical role of teachers in making decisions regarding classroom practice because they are closest to their students and know them better. I also believe that teachers as agents, rather than victims of change, can and do

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<sup>2</sup> The first democratically elected Director-General of national education in South Africa from 1994 to 1999

influence policy change (Sayed, 2001:195; Welton, 2001:175). But I do not regard teachers as a homogenous group who respond to change in uniform ways. This is confirmed by Datnow and Castellano (2000) that teachers respond to school reforms in varied ways such as pushing or sustaining reform efforts, resisting or subverting them in active or passive ways. This literature is essential to this study since the focus of this study is teachers or 'street level bureaucrats' working in their real classrooms from where insights into the implementation process could be mined.

I agree with Lieberman (1998) that changing teachers and schools is a long-term process involving an understanding of the policy problem and the local culture of individual schools and their teachers. Fullan (1999) concurs that translating ideas into practice is a more complex process than is realised. The difficulty of changing policy into practice is also reflected in a comparative study of assessment in a cross-section of countries, where it was found that:

*The methods of assessment, the large scale use of marks and grades and the ways in which the results were recorded, did not lend themselves to any systematic use being made of assessment information to improve the quality of either teaching or learning.*

(Macintosh, 1994 in Pryor and Akwesi, 1998, p. 269)

Research reports on assessment practice in England also revealed that implementing assessment to improve pupil achievement was a problem (DES, 1992 in Harlen, et al., 1992). Black and William (1989b) also found that there was a widespread pattern of assessment practices that did not foster pupil learning. With reference to research on National Assessment in England and Wales, Torrance (1993) found that new approaches to assessment did not automatically have a positive impact on teaching and learning. In the USA, it was found that policies that have the greatest appeal are those least likely to produce any substantial change in teaching and learning (Muller and Roberts, 2000).

Similarly, in South Africa it was found that although teachers often claim enthusiasm for new policies, on close examination the actual classroom changes are modest (Chisholm, 2000; Jansen, 1999a; 1999b; 1999c; Taylor and Vinjevolt, 1999). The neglect of implementation concerns in the new education policies is argued to be a

fundamental flaw that had severely compromised the capacity of the policies to deliver change (Jansen and Christie, 1999). This gap between policy and practice is supported by Sayed & Jansen (2001:1) who add that “little had changed ‘on the ground’” and that “South African Education is awakening to the fact that policy ideals seldom match classroom practice” (p2). This is the gloomy reality on the ground despite the heavy ideological investment in new curriculum policies (Jansen & Christie, 1999) and despite the claim that formal education policies in South Africa can be compared favourably to the best in the world (Asmal, 1999). Vally (2003) goes further, placing the policy implementation problem in a broader macro-economic context:

*[The] overarching and political choice of GEAR<sup>3</sup> has had and continues to have a major impact on social development options, resource availability and social delivery at the local level.*

With reference to the implementation of education policies during the transition in South Africa, Manganyi (2001:32-36) refers to intrinsic factors such as the conception and development of the policy, and extrinsic factors such as resources to support the implementation process, as determining the chances of successful policy implementation. He outlines the mediating role of social institutions, both statutory and non-statutory, created by government. The Constitution, he argues, legitimates the separation of functions between the government and those social institutions that enjoy a high degree of operational autonomy. The position of Manganyi is as follows: the lack or failure of implementation is blamed on the inability of the statutory institutions to execute their mandate; the national government is innocent because its function is not implementation of policy; the implementation functions of the public service sector have limited administrative and management experience; the three-tier system of government, namely, national, provincial and local is complicated because the Constitution again legitimates the differentiating functions of each tier; the national minister has executive accountability for higher education and all national policy in respect of the school system, while the provincial government have executive responsibilities for the schools under their jurisdiction; in some provinces there was widespread role confusion between politicians and senior public servants,

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<sup>3</sup> Growth, Employment and Redistribution Strategy, the macroeconomic framework of the democratic South African government released in 1996

which resulted in conflict and high turnover of senior education officials; and the national government did not have sufficient human and material resources to cope with the scale and complexity of the education change process. This complexity and frustrations with implementation resulted in a Cabinet directive for a “more hands-on, supportive and interventionist approach in national-provincial relations” (p33). This account suggests the reactive orientation of the government in the policy process, and its lack of attention to understanding the implementation process at the time of policy formulation and declaration. This is supported by Nzimande (2001:3) who attests to the lack of understanding and resources required to influence the formal process of policy implementation.

In a related study, Welton (2001:175) found that one of the results of South Africa’s new policy-making and legislation programme had been the deskilling and disempowering of teachers and managers whose professional knowledge and identity have been challenged. He argues that although the challenging of professional knowledge and identity is necessary it needs to be accompanied by a strategy for implementation that includes a major programme of reskilling and re-empowerment. He bemoans the absence of a systematic, system-wide strategy for implementation at the level of practice (p176). He adds that the process of implementation generally is still very uneven and weak overall (ibid.). He uses the metaphor of ‘tissue rejection’ of a foreign implant to illustrate the fate of our new policies at the level of practice (p180).

The explanations for the lack of fit between education policy and practice in postcolonial states are usually ascribed to the lack of resources, the legacy of inequality and the lack of capacity to translate the policy intent into practical reality (Jansen, 2001b:271). Jansen (ibid) challenges this conventional view and charges that “this is a view of policy that is devoid of politics and of power, of competing interests and conflicting struggles” (ibid). He uses this charge to provoke a challenge to the conventional view in terms of the policy intent, that is, he asks, “What if the policy stated was not in the first instance intended to change practice? What if other primary motivations lay behind the generation of new policies rather than transforming realities of teaching and learning in classrooms?” (p. 271). He uses empirical analysis to develop a theory of ‘political symbolism’ to explain non-

implementation of policy or lack of change in South African education reform after apartheid despite considerable political investment in efforts to change apartheid schooling (Jansen, 2001b, 2002). He describes the policy-making process in South Africa as a “struggle for the achievement of a broad political symbolism to mark the shift from apartheid to post-apartheid society” (Jansen 2001b: 272). He rightly claims that the state was preoccupied with settling policy struggles not in the realm of practice but rather in the political domain (p. 272). He continues that political symbolism in policy development is disconnected from any serious concerns about changing educational practice (ibid: 273). He observes that politicians and the public pay more attention to the development of policy rather than to its implementation. Hence he adds that our policies receive much praise because it can be compared to the best in the world (Asmal, 1999). This, he continues, serves to consolidate the view of the political importance of the formal statement of policy in South Africa reflecting South Africa’s fascination with policy statements and its social validation rather than their implementation (ibid). He correctly adds that implementation was not conceptualized as an advanced planning tool but something improvised or constructed through crisis, and that policy documents are not accompanied by implementation plans. He argues further that the continued over-reliance on political symbolism as the overarching framework for education policy rules out change in schools and improvement in education quality (ibid: 284-5). By implication, an argument is being made that for change in practice to occur, deliberate attention should be focused on implementation that is “concerned with the sobering realities of making change happen in practical terms in sites where it is most manifest and effective, such as schools” (ibid: 7). I fully support his argument because it is paying deliberate, focused attention to understanding more accurately and deeply the dynamics and complexity of implementing change at the classroom level – the level that matters most because that is where we can directly make a difference to the lives of our students. De Clerq (1997) endorses this view.

This literature identified the potholes that mark the bumpy road to effective policy implementation. These studies demonstrate that most policies are not necessarily implemented as intended by the policy. Various arguments are offered for successful implementation: McLaughlin (1998) argues that local capacity and will, context and teachers professional communities are essential for success; Fullan (2001) argues that

a system of interactive factors such as the characteristics of the change (need, clarity, complexity, quality/practicality), local characteristics (district, community, principal, teacher) and external characteristics (government and other agencies) will accomplish change in practice. Garn (1999) shows how implementer attitudes to support policies ensured successful implementation. Jansen (2001b, 2002) uses a ‘theory of political symbolism’ to explain non-implementation of policy; Datnow and Castellano (2000) show how teachers’ beliefs, experiences and adaptations shape implementation. The absence of a collaborative framework has been identified as a significant barrier to implementation of education reform in the Czech Republic (Polyzoi and Cerná, 2001). Allington (2001) argues that it is the time lag between the emergence of new policies and the initiation of the implementation of the policies that causes implementation problems. Others argue that local policy implementation is undermined because of the inability of state policymakers to craft clear and consistent directives with respect to the behaviours desired from the implementers (Mazmanian & Sabatier, 1981; Van Meter & Horn, 1975). Woodbury et al (2002) provide an alternative model to the implementation dilemma in response to their view that many perspectives on school reform did not adequately account for the complexity of the educational change process.

This exploration of the literature on educational policy implementation revealed very few if any arguments made for deeper understandings and explanations for the policy implementation dilemma. The exceptions are Coburn (2003), Fullan (2003) and McLaughlin and Mitra (2001). And these studies are located in developed countries. In developing countries contexts especially in South Africa, it is only Jansen and Taylor (2003) who argue for “deep and wide” (p.43) systemic reform. Their view:

*We define systemic reform as having a breadth aspect – reaching across the education system to connect key leverage points that affect the education reform goals – and a depth aspect – reaching down the education system to ensure deep and sustainable change in the government’s education reform initiatives.*

(p. 43, emphasis added)

Extending this deep change discourse in educational reform initiatives, I suggest a broader theoretical framework to understand the relationship between policy and practice, so that educational reforms are not only large scale in terms of going broader

but they also go deeper. In the next chapter I advance and articulate the conceptual framework employed in this study within which educational policy implementation could be examined and explained in an environment characterized by complex, multiple, contradictory and shifting priorities.

### **Summary of Chapter Two**

This chapter explored the extant literature on education policy implementation in both developed and developing countries. I report that while most reform initiatives have educationally impressive intents such as calling for more intellectually demanding content and pedagogy for everyone, the outcomes of these reform initiatives at the level of classroom practice is less than impressive. Implementation scholars have offered numerous explanations for the dissonance between policy and practice. The chapter argues for a broader perspective of understanding this complex and dynamic relationship between policy and practice. The framework proposed is meant to supplement rather than supplant existing accounts of the policy implementation process. The next chapter elaborates on this new conceptual framework.

## CHAPTER THREE

### **Towards a Conceptual Framework for Understanding the Relationship between Policy and Practice**

“Our own tendency as policy advisors and policy makers is to overshoot noble goals with too many simultaneously announced rapid fire policy changes, and to forget about how to implement these”<sup>1</sup>

In the previous chapter I reviewed the literature on educational change in order to provide the conceptual platform to build the theoretical framework for this study that addresses three policy-specific questions regarding teacher understandings and beliefs with regard to the assessment policy; how teachers practice assessment in their classrooms; and how the continuities and the discontinuities between official policy on assessment and teachers’ assessment practices could be explained.

In this chapter I describe and discuss the conceptual framework that enabled me to examine and explain the continuities and the discontinuities between official policy on assessment and teachers’ assessment practices. I draw on the construct of ‘deep change’ articulated by Fullan (1993; 1999b, 2001; 2003) to develop the framework that I refer to as a ‘Deep Change Framework’. This framework is directed towards constructing a different understanding of the relationship between educational policy and classroom practice within the context of educational reform in a transitional democracy. This framework is premised on the notion that the optimisation of outcomes of the policy process is facilitated by a deep understanding of that process. If policymakers wish to facilitate the implementation of policy by teachers they must understand the process by which teachers implement/do not implement policy and the conditions that support or hinder the process. This framework adopts such a process orientation; it views change as deep, non-linear, complex and dynamic; and recognises the simultaneity of top-down (policy) and bottom up (teacher) change initiatives. This deep change perspective offers a different strategy for analysing and

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<sup>1</sup> Quotation from a paper delivered at the International Conference on Emerging democracies, citizenship and human rights education in Netherlands by Dr I Rensburg, then Deputy Director-General of Education of South Africa, 18-21 June 2000.

understanding the tenuous relationship between policy and practice. As Dewey (1960: 102) put it:

*A standpoint which is nowhere in particular and from which things are not seen at a special angle is an absurdity. But one may have affection for a standpoint which gives a rich and ordered landscape rather than for one from which things are seen confusedly and meagrely.*

I therefore use the deep change framework as a perspective that is not only rich and ordered, but also provides the conceptual tools necessary to understand anew the continuities and discontinuities between official policy on assessment and teachers' assessment practices. This perspective does not critique, dismiss or denigrate other perspectives or explanations, but adds new insights to the policy-practice dilemma in education change settings.

### **DEEP CHANGE**

All change is not the same. Yet policy reformers assume that new educational goals will alter teacher behaviours and beliefs in ways that lead to uniform, meaningful and sustained changes in teaching and learning. Change, however, can be nonexistent, that is no real change in the desired direction (Fullan, 1991, 2001); and change can be superficial (Fullan, 1991; McREL, 2000) with alterations only in the surface features of teacher behaviour without understanding the principles of and rationale for the change. Change can also be temporary or unsustainable (Fullan, 2001), without the long-term changes in teacher behaviours that extend beyond the life of a particular reform. Change can be mechanical, with teachers going through the routines of change but without understanding or committing to the deeper value-orientations and belief systems that underpin a new reform. Change can be incremental (Quinn, 1996), with small steps in the change processes that can be described as evolutionary rather than sweeping, transformative changes in teaching and learning signalled in ambitious policies of societies undergoing radical change. In other words, the fact that policy reforms induce change is less interesting than searching questions about the depth, meaning, nature and sustainability of such changes among teachers. It is this set of concerns that inspired me to employ what the literature calls 'deep change' as a conceptual framework within which to measure and explain the qualities of change

among teachers exposed to a comprehensive new policy on assessment reform in South Africa.

*What is “deep change”?*

Fullan (1991) notes that deep change involves constructing deep, sophisticated meaning of the change in terms of what the change is, the purpose of the change and how the change process proceeds. It involves a fundamental shift of mind in thinking about change (Fullan, 1999b). Deep change involves altering the underlying assumptions, goals, philosophy or belief, skills, conceptions and behaviour regarding teaching and learning, including assessment – a change in culture (Fullan, 1991; 1993). Deep change involves teachers seeking the best knowledge and ideas in order to go deeper into helping their students construct new meanings, solve problems, work in diverse groups, and be proactive learners in a complex changing world (Fullan, 1999b). It implies taking risks and living with uncertainty (*ibid*). Deep change means that teachers see themselves as active agents of change (change agency) rather than victims of change complying uncritically with policy reforms (Fullan, 1993). This means:

*[Each] and every teacher has the responsibility to help create an organization capable of individual and collective enquiry and continuous renewal, or it will not happen...It is only by individuals taking action to alter their own environment that there is any chance for deep change.*

(p39-40; emphasis added)

For deep change, Fullan (2003:5) argues:

*[We] need the creative energies and ownership of the teaching force and its leaders. Hence the current emphasis on “informed professional judgment”.*

He adds that the vast majority of people in the system should end up owning the problem and be agents of its solutions. This does not mean that the problem should be handed over to the people, but that conditions and processes should be created that will enhance the possibility of greater ownership and commitment (*ibid*). These conditions should be balanced between chaos and order because too much chaos is harmful and too much order could lead to fear, resistance or even passive dependency (*ibid*).

The core capacities of change agency are personal vision, mastery, inquiry and collaboration and are essential to live in a state of continuous imbalance created by surprising and unplanned change forces (Fullan, 2003: 102). Deep change agency will mean that teachers develop rapport between top-down and bottom-up strategies because top-down and bottom-up forces co-exist and feed on each other (p4). Teachers will realise that they need the top and the top needs them in a “different two-way relationship of pressure, support and continuous negotiation” (p38). For example, teachers should appreciate that policies on assessment could and should serve both the accountability function of making everyone aware of how well students are doing, and the implementation function of developing strategies to make improvements in teaching and learning based on the results. In other words deep change involves teachers acquiring new skills, capacity, behaviour, commitment, motivation, beliefs and understandings in relation to the reformed policy. Fullan (1993:23) observes:

*It is no denial of the potential worth of particular innovations to observe that unless deeper change in thinking and skills occur there will be limited impact. ...[The] main problem in public education is not resistant to change, but the presence of too many innovations or adopted uncritically and superficially on an ad hoc fragmented basis.*

(emphasis added)

Stacey (1996), in Fullan (1999b: 68), supports this view and argues:

*People who begin to think differently will almost certainly begin to act differently, and they will then almost certainly affect someone else who will begin to behave differently.*

However, we are cautioned that people cannot be forced to change, coerced to think differently or to develop new skills, but that they need to be provided with the appropriate conditions that enable them to “consider personal and shared visions, and skill development through practice over time” (ibid). Teachers cannot have an impact in the classroom unless they also have an impact on altering the working conditions surrounding the classroom (ibid).

Deep change means teachers guided by moral purpose in complex times of change; that is, pursuing improvements designed to make a difference in the lives of students, even though it is enormously complex and difficult (Fullan, 1993, 1999b, 2001,

2003). Achieving moral purpose means developing mutual empathy and relationships across diverse groups, a difficult but necessary task (Fullan, 1999b). Moral purpose also means pursuing equity in teaching, learning and assessment:

*We find that when reforms seek to achieve parity in opportunity and achievement across diverse groups of students, reformers faced enormous challenges.*

Oakes *et al.* (1998), in Fullan (1999b: 2)

Moral purpose, at the macro-level, can be described as education's contribution to societal development and democracy (*ibid*). Moral purpose combined with change agency synergises care and competence, equity and excellence (Fullan, 1993). But:

*In the teaching profession these two facets of educational development have not come together. When teachers work on personal vision- building and see how their commitment to making a difference in the classroom is connected to the wider purpose of education, it gives practical and moral meaning to their profession.*

(p145)

Deep change involves collaboration, collaborations formed inside and outside the school (Fullan, 1999b). Collaboration means forming quality collegial relationships, making connections, and seeing and valuing inter-relationships. This is especially important in education where educational problems are so complex that they require the mobilization of a collective force working insightfully on the solutions and committing themselves to concentrated action together. It was found that schools that worked collaboratively did better than those schools where isolation and privatism prevailed (Fullan, 1993). A useful caveat follows, that is, individualism is not bad.

The capacity to think and work independently is essential to educational reform. Herein is a paradox, namely the tension between collaboration and individualism. However, policy makers are advised to honour both individualism and collegiality simultaneously, and to allow the creative tension between individualism and collegiality to prevail (p36). In extreme cases collaboration could lead to 'group think' meaning "uncritical conformity to the group, unthinking acceptance of the latest solution, suppression of individual dissent" (p34). Collaboration means forming professional learning communities (*ibid*). It was found that student performance was high in schools that had a strong professional learning community (*ibid*). Professional

learning communities generate greater learning (*ibid*). Collaboration means aligning and integrating new ideas with ideas that are already working to achieve greater dynamic coherence (*ibid*). In collaborative schools teachers spontaneously self organise to share and assess new ideas (*ibid*). ‘Communities of practice’ is another term used to illustrate the power of groups in achieving deep change:

*Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis...*

(Wenger, et al., 2002, in Fullan, 2003:45)

Deep change also involves forming collaborative relationships with the communities outside the schools such as the parents, surrounding community, business, the district and state level authorities (Fullan, 1999b; 2003). This collaboration both inside and outside the school requires deep assertive planning to obtain substantial results (*ibid*). This essentially means that quality relationships developed could inspire willingness to invest in extra sacrifices and effort, and loyalty to the profession – resources beyond money to achieve deep change. This collaborative context allows for a “culture of knowledge sharing” where people are interacting; new knowledge is being produced in the heads of people; new solutions are being discovered; people own these solutions in the sense that they are passionately committed and energetic about pursuing them; and there are questioning and critical people so as to avoid locking into weak solutions and to continually seek potentially better ideas – critical sharing for deep change (Fullan, 2003:47).

Deep change seeks the fusion of the intellectual, political and spiritual forces of change (*ibid*). The intellectual force is about schools creating knowledge using the world of ideas about learning (*ibid*). The political component involves establishing alliances among diverse groups inside and outside the school in order to mobilize power to achieve educational goals (*ibid*). The spiritual force or moral dimension is the commitment to make a difference in the lives of all students (*ibid*). The fusion of these three forces not only reinforces each other but “*produces five times the energy – the kind of energy that is essential for self-organising breakthroughs in complex systems*” (p82, emphasis in original). Fusion depends on engaging the public in the debate about ideas, power and purpose (*ibid*). In essence deep change according to

this perspective means developing the cognitive, moral and affective powers, and seeing their relationships as mutually reinforcing to bring about deep change. It means bringing about deep educational change with both mind and heart, and not just routine or technical behaviours.

Deep change is achieved when the theory of education and the theory of change (or action) are simultaneously strong (Fullan, 1999b; 2003). Fullan (2003:53) argues: *[You] cannot go deeply unless you create powerful new synergies between these two theories.* The relationship between the theory of education and theory of change is illustrated in the figure below:

		<b>Theory of Education</b>	
		Weak	Strong
<b>Theory of Change</b>	Weak	Drift	Superficial Change
	Strong	Change for the sake of change	<b>Deep change</b>

Figure 1: Theory of education and theory of change  
(Adapted from Fullan, 2003: 53)

Fullan (1999b) further proposes that reforms be examined in terms of their theories of education and their theories of change or action (p.20). A theory of education includes the substance of content, the pedagogy, including moral purpose and knowledge, the pedagogical assumptions and associated components essential to the reform (Fullan, 1999b; 2003). The theory of change or action concerns what strategies are formed to guide and support successful implementation (ibid). The distinction between the theory of education and the theory of change is slippery and not absolutely pure, but it is useful in developing a sophisticated understanding of deep change. One of the complex change lessons is that theories of education and theories of change need each other (Fullan, 1999b). But the two theories can coexist independently of each other or one can be seriously underdeveloped at the expense of another (Fullan, 2003). Many

reformers are surprised when their initiatives encompassing well-developed theories of education are ignored or misused in practice (Fullan, 1999b). The explanation for the failure is ascribed to the absence of a theory of change or action. For example, the problem with progressive reformers who used Dewey's progressive pedagogy was:

*[Their] theory of education in the absence of a theory of action drove them down a path of self-destruction.*

(Fullan, 1999b:67)

Fullan (p51) refers to reformers with flawed theories of action as having *faulty maps of change*, and ascribes these faulty maps of change for non-implementation of policy ideas.

Most reform initiatives have a theory of education at best, and rarely have a theory of action to address local context, culture or condition. Theories of change must focus on context because:

*Local context (readiness to learn, local capacity, etc.) is a crucial variable, and no program can expect to spread successfully if it does not take into account the variable contexts which it will inevitably encounter.*

(p21)

With reference to seven reform strategies, namely standards, teacher development, new school designs, decentralization and site-based management, charter schools, school contracting and vouchers Fullan (1999b:71) argues:

*In my terms, these reform strategies contain elements of a theory of education but lack comprehensive theories of action needed to address related conditions, which would have to be altered in order for success to occur.*

The large-scale curriculum development projects of the 1950s and 1960s, also, while strong on ideas almost totally neglected the culture of the institutions that were to host the innovations (ibid). The implication is that deep change means changing the context, which is difficult but possible. Changed context can result in new behaviours, but the new contexts need to be dramatically different to stimulate new behaviours (Fullan, 2003).

But the problem is extremely complex; even with a well-developed theory of action, reform initiatives face incredible difficulties pertaining to tacit knowledge, local

prehistory, local politics and personalities (ibid). It is equally important to make explicit the theory of change guiding a program of change (ibid). In examining four programmes with compatible theories of educations, it was found that each had different theories of action that led to conflicts around dilemmas of schooling. Different approaches to handling the dilemmas made it difficult to make action decisions to carry out the collaborative work demanded by the projects (ibid). The author concludes:

*Rather than trying to forge a single, common theory of action, those involved in reform efforts might be better off trying to gain a deep, respectful understanding of when and why they are likely to disagree.*

(Hatch, 1998 in Fullan, 1999b:21)

Perhaps the theory of change should be guided by the science of complexity or complexity theory that essentially claims:

*[That] the link between cause and effect is difficult to trace, that changes (planned and other wise) unfolds in non-linear ways, that paradoxes and contradictions abound and that creative solutions arise out of interaction under conditions of uncertainty, diversity and instability.*

(Fullan, 1999b:4)

The theory of action should factor in the pedagogical and experiential gaps between different teachers and the contextual gaps between different schools. It should aim at overcoming the obstacles and disadvantages to teachers' pedagogical achievement by considering more sophisticated strategies. This could give deeper meaning to the moral question of change by reducing if not closing the educational gaps between disadvantaged teachers (who are more likely to teach in under-resourced and/or rural schools) and advantaged teachers (who are more likely to teach in well-resourced and/or suburban schools) given the different starting points of different teachers. The strategy must include capacity building as a route to individual and social development.

The theory of change/action should view schools as "living systems" (Fullan, 1999b:13), which means being sensitive to the people within the school and developing relationships with the external environment. The success of living systems is that they consist of intricate, embedded interaction inside and outside the

organization, which converts tacit knowledge to explicit knowledge on an ongoing basis (ibid). The conversion of tacit knowledge to explicit knowledge is a meaning-making process because it brings knowledge out into the open to be shared (ibid).

Knowledge creation is crucial:

*The sharing of tacit knowledge among multiple individuals with different backgrounds, perspectives, and motivations becomes the critical step for organizational knowledge creation to take place. The individuals' emotions, feelings, and mental models have to be shared to build mutual trust.*

(Nonaka and Takeuchi, 1995 in Fullan, 1999b:16)

This 'living system' orientation towards schools may likely address the criticism that "schools are more a conservative agency for the status quo rather than a revolutionary force for transformation" (p10).

A word of caution is instructive: "there never will be a definitive theory of change" that will be applicable to all situations because each situation is unique with its own history and makeup that would cause unpredictable differences to emerge (p10). It is equally important to note that rationally constructed reform strategies do not work because they are inappropriate in the face of rapidly changing environments that self-generate complex dynamics over and over again. Fullan (21) advises:

*[It] is the task of change theorists and practitioners to accumulate their wisdom and experiences about how the change process works.*

Quinn (1996) describes deep change as making personal choices and commitments as well as taking personal responsibility to disrupt the *status quo*, which most organisations naturally tend towards. He adds that deep change requires new ways of thinking and behaving, it is major in scope, is discontinuous with the past and is generally irreversible, it distorts existing patterns of action and involves risk taking, it is much more difficult and it demands a great deal from those who are in the system. It is unsettling and it requires people to call forth and learn new ways of interacting with problems and with the environment. In other words reform efforts requiring deep change means shaking up the system inside out (*ibid*). This view of deep change differs from Fullan (described above) in that it is more dramatic and exaggerated. But for radical change to take place, maybe this is what is needed. The question is which concept of deep change works best under what conditions?

My understanding from the literature is that deep change involves deep and consequential change in classroom practice by teachers and when teachers make major paradigm shifts in their epistemology, values, beliefs, attitudes, skills and behaviour to realize the transformative goals of the reformed policy. My understanding seems to resonate with the definition of deep change provided by Coburn (2003: 4):

*By “deep change,” I mean change that goes beyond the surface structures or procedures (such as changes in materials, classroom organizations, or the addition of specific activities) to alter teachers’ beliefs, norms of social interaction, and pedagogical principles as enacted in the curriculum.*

But achieving this kind of change is a complex endeavour and an enormous challenge for teachers, the difficulty of which was reported in the findings of the Review Committee on Curriculum 2005, that teachers lacked the deep understandings of Curriculum 2005 and struggled with issues on assessment (Chisholm, 2000). Other examples also reveal the lack of deep change in teacher’s classroom practices compared to reform policy expectations (see Coburn, 2003; Cohen, 1990; Ball, 1990; Fullan, 1993, 1999b, 2003). I agree that it would be more challenging for teachers to make deep changes in practice the further the new practice is from existing practices (Cohen and Ball, 2000, in Coburn, 2003). The literature also posits that for teachers to change deeply, a strong theory of education and a strong theory of change necessary (Fullan, 2003). Defining deep change matters for it influences both the ways policymakers craft reform strategies and the way researchers study the problem of depth. Knowing what deep change is leads to the question of why deep change is important.

*Why is deep change important in education reform?*

Dramatic social, political, economic and technological changes create new complex goals for education and adaptive challenges to teachers requiring them to change their practices at a deep level to respond to these challenges. Adaptive challenges are often systemic problems with no ready answers to respond to the dilemmas. The new assessment policy is an example of a response to the adaptive challenges of significant social and political changes coupled with increasing attention to student

performance by society. The adaptive challenges require schools to change the way they operate in order to thrive in an environment that differs from the past (McREL, 2000: 4). This new environment challenges deeply held beliefs, question past values that were accepted and poses competing but legitimate perspectives. Deep change is also essential to serve the moral purpose of education (Fullan, 1999b). The moral purpose of education includes engaging in improvements designed to make a difference to the lives of all students, especially the disadvantaged ones, enabling them to be productive citizens in our increasingly complex and dynamic society (Fullan, 1999b: 4). Deep change is required to develop human capital, which is, making a difference to the lives of individual students, and linking this to the development of social capital, that is, making a difference in all students for the larger social good (Fullan, 1991; Merchant, 1995). Deep change is important to convert organisations into learning organisations so that their traditional beliefs and practices do not become calcified and resistant to change but enabling them to radically modify their values and behaviour to reflect new knowledge, skills, conceptions, values, and insights. Deep change is important for a greater understanding of the big picture of change and for more meaningful teacher change.

*What are the strengths of deep change?*

Deep change enables teachers to make a radical break from past policies and practices that were educationally, politically, economically and morally inappropriate, if not damaging, for human development and growth. For example, in South Africa, the debilitating effects of our past apartheid policies and practices on the majority of our people are well documented and well known. It is unquestionable that the world is changing at a phenomenal rate, and this creates enormous pressure for us to change in ways that are deep in order to respond to the challenging, complex, dynamic, uncertain world. Engaging in deep change creates conditions for the development of critical and problem-solving skills. Teachers would no longer be uncritical implementers of policy. Students will also be given the opportunities to change in deep and meaningful ways. High quality, substantive and sustained change will be possible by deep change. Deep change most probably would enable us to move to “New horizon 2”, the kind of deep reforms needed in the twenty first century (Fullan, 2003:3).

*What are the limitations of deep change?*

One major weakness is the assumptions about teacher learning and change. There is an assumption that if teachers have a deep understanding of the change and find the change meaningful, they will change their classroom practice accordingly. What if they do understand and have developed a deep meaning of the change but decide not to practice the change because of the extra effort, energy and time required to implement change? What if there are no incentives and sanctions accompanying and sustaining teachers' deep change efforts? Would that mean that teachers lack the commitment to practice deep change? There is also the assumption that teachers have the capacity to make deep changes. Under what conditions would teachers make deep change in teaching and learning? How do multiple realities of teachers' lives impact on their willingness and capacity to change deeply? Another weakness is related to how to get teachers to change deeply. It needs to be acknowledged that teachers have their own personal ideologies, preferences, values, knowledge, beliefs, and practices about assessment, teaching and learning that they have developed and internalised during the course of their development as students and as teachers. This tenacity of their established traditions will inevitably influence the nature and extent of changes in their practice. They cannot be told or coerced into making deep changes. Making deep change is unlike removing old clothes and putting on new ones, Far from that. Teachers have to struggle through ambivalence and ambiguities to develop deep change over time. Underlying assumptions, values, beliefs, perceptions and behaviors cannot be changed by policy directives, but can be cultivated, nurtured and encouraged by the creation and sustaining of conditions that allow teachers the opportunities to make such deep changes (Day, 1999). Those conditions have yet to be developed and examples of deep change are yet to appear (Fullan, 2003). Deep change demand more effort, and failure of deep change will take a greater toll on the educational enterprise.

Arising from the survey of the literature on change and in particular, the literature on *deep change*, as well as the conceptual framework discussed above, I make three key propositions about deep change, which I discuss below.

*Key propositions about deep change*

I describe these propositions as tentative and “fuzzy” (Bassegy, 1999: 13). These propositions are informed by my experience as a classroom teacher, teacher educator and education policy maker. The propositions I make must be seen as theoretical concepts to be tested in this study; they are tentative and open for others to follow up and test their trustworthiness. They are tentative statements rather than absolute claims on knowledge. The three key propositions are as follows:

**Proposition One:**

**Teachers may not have a deep, sophisticated understanding of a new assessment policy even if there is evidence of strong rhetorical commitment to the policy**

There must be a dynamic synergy of what teachers do and the meaning or purpose they ascribe to it. Inherent in the purpose or meaning is the pedagogical belief in the change. The purpose of the specific change, which is the change in the assessment policy, must be located within the larger goal of the country’s reconstruction and development agenda, including curriculum change. In other words teachers need to have a deep sophisticated understanding of the new assessment policy. The crux of change is developing deep meaning in relation to the new reform:

*The problem for implementation then, is not only teachers “learning how to do it,” but teachers learning the theoretical project ... absent knowledge about why they are doing what they’re doing; implementation will be superficial only, and teachers will lack the understanding they will need to deepen their practice or to sustain new practices in the face of changing context.*

(McLaughlin and Mitra, 2000 in Fullan, 2001: 45, emphasis in original).

My proposition is that teachers may not have this deep sophisticated understanding of the assessment policy, but rather a superficial understanding of the new assessment policy. Fullan (2001) who noted that teachers often make classroom decisions based on pragmatic trial-and error grounds rather than thinking through the rationale and principles of the change supports this proposition. He adds that superficial adoption must be replaced with deep meaning (Fullan, 2001). Oakes and his associates (Oakes, et al., 1999) also observed that teachers often rush to adopt new initiatives without

considering their deeper meanings and purposes. Similarly, McLaughlin and Mitra (2001) concluded that for the achievement of deep reform teachers needed to know why they were doing what they did to prevent superficial implementation. Therefore in this study I do not assume that the teachers understand the policy's intended message, in other words, I problematise the understanding of the new assessment policy by teachers.

### **Proposition Two**

#### **Teachers may not be able to reconcile their own assessment beliefs and capacities with the stated goals of a new assessment policy**

Teachers will react to their perceptions of change in different ways depending on their own guiding beliefs and capacities. I agree:

*Changes in beliefs are even more difficult: they challenge the core values held by individuals regarding the purposes of education; moreover, beliefs are often not explicit, discussed, or understood, but rather are buried at the level of unstated assumptions.*

(Fullan, 2001:44)

My proposition that teachers may not reconcile their own beliefs and capacities about a new policy with the stated goals of the policy is based on the fact that teachers seldom if ever, are provided with opportunities to overtly articulate their beliefs and capacities about new policies. This assertion is supported by House and McQuillan (1998) who observed that the broad goals of reforms remained far removed from the everyday lives of teachers. The way reforms are introduced to teachers is usually by telling them about the goals, aims and principles of the reform (see Chisholm, 2000: 57). Beliefs and capacity are related to will and commitment, the essential requirements that matter in policy implementation (McLaughlin, 1998).

### **Proposition Three**

**Teachers may find that traditional assessment practices (that is, examinations and testing) hold greater efficacy in the classroom than the alternatives required by a new assessment policy**

I assert that their assessment practices will be based on their past historical context and experiences, in other words in ways that they were assessed as students, in ways that they are familiar with, by following the existing traditional practices present at the schools and by the present conditions, opportunities and constraints present in the classroom and the school. In other words they will use assessment in a linear, sequential manner, mostly for grading and promoting students rather than connecting it meaningfully to teaching and learning.

In using these propositions to explore and understand the relationship between policy and practice, I must reiterate and emphasise, and as stated previously, that if the propositions prove to be true, I will not use them pejoratively by ascribing it to teacher deficiency, but rather to various other possibilities. Furthermore, as stated previously, I view teachers as active agents of and for change, therefore I treat them as my key informants or 'primary unit of analysis'.

#### *How I use deep change in my research*

Each of the propositions that I have constructed is linked to the research questions in this study. I therefore examine the data from each case study in relation to the policy analysis described in Chapter One of this study, and this conceptual framework to ascertain whether each teacher:

- Developed deep and sophisticated understandings and beliefs concerning the new assessment policy;
- Developed the new knowledge and skills or capacity in assessment as required by the policy;
- Practiced the different types of assessment as required in the new assessment policy;

- Made the kinds of changes expected by the assessment policy, or made other the kinds of changes described in the conceptual framework.

In other words I make a three-way comparative analysis between the new official policy on assessment, the conceptual framework on deep change and the teacher case reports. I shall employ this three-way comparative analysis to explain the continuities and discontinuities between the new official policy on assessment and the teachers' assessment practices. This explanation is located within the broad purpose of the study, that is: understanding the relationship between macro-level policies and micro-level practice.

This conceptual framework on deep change, in addition to its potency in understanding the relationship between policy and practice, guided me in choosing an appropriate methodology to guide the study in responding to the three research questions mentioned earlier in the chapter.

### **Summary of Chapter Three**

In this chapter I advance and articulate a new conceptual framework called 'deep change' as a theoretical tool to examine and explain the relationship between policy and practice. I describe different types of change including deep change. The importance, strengths and limitations of deep change are discussed. The chapter makes three propositions with regard to teacher change that would be tested empirically by the data collected in this study. I suggest that for the successful implementation of policy teachers need to change deeply. The chapter explains how the propositions made in the study could be tested in light of the new conceptual framework.

The next chapter explains the research methodology employed in this study.

## CHAPTER FOUR

### The Research Methodology

*We are not human beings having a spiritual experience. We are spiritual beings having a human experience<sup>1</sup>*

In the previous chapter I advanced a broader conceptual framework for this study. In this chapter I shall describe and illustrate my role as a qualitative inquirer; an outsider and a non-participant researcher seeking to capture the assessment experiences, understandings and practices of two teachers in relation to the new assessment policy of the South African government. I will describe and explain my strategies to obtain data that would cast new light on the relationship between assessment policy and practice, and specifically to respond to the three research questions that provided the script for this study. The three questions can be summarised as follows:

- 1: *What are teacher understandings and beliefs with regard to the assessment policy?***
- 2: *In the context of official policy, how do teachers practice assessment in their classrooms?***
- 3: *How can the continuities and the discontinuities between official policy on assessment and teachers' assessment practice be explained?***

#### Choosing a Methodology - Qualitative Methodology

My methodological decisions derived largely from the established research literature. I will however complement this account with my own experiences and understandings of qualitative methodology.

Schools as educational institutions and the individuals, including teachers, who are involved in and with them are a heterogeneous group of beings having different human attributes, abilities, aptitudes, aims, ideologies, values, perspectives, needs and experiences. I required a methodology that would be able to capture this heterogeneity

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<sup>1</sup> Pierre Teilhard de Chardin, a French philosopher, in Bloomfield and Cooper (1995: 483)

from each teacher's perspective and, according to Bogdan and Biklen (1982) qualitative methodology enables the researcher to consider experiences from the informant's perspectives. This methodological stance resonated with the purpose of this study – to find out what **teachers**, as **key informants** in this study, were saying, understanding and doing. In other words, to gain access into teachers' professional and personal landscapes of understandings, knowledge, beliefs and actions with reference to the new assessment policy. It is an approach that does not evacuate the personal experiences of teachers in the educational change process. However, this focus on the personal is with due reference to the wider political, educational, social, economic and cultural debates, and not independent of them. Furthermore I recognize that schools and teachers inhabit complex social contexts with all the issues and influences that this entails. Accordingly the methodology chosen takes account of the complex social contexts that shape human experience and actions. I hold the position that qualitative research methodology is capable of accommodating and accounting for the myriad of differences and complexities that are involved in social settings such as schools (Bassey, 1999). Furthermore, schools do have their problems but the analysis and location of these troubles requires a methodology that is not simplistic, misleading and therefore procedurally and conceptually dangerous. In this sense, qualitative research does not ignore but rather addresses the complexities of the various aspects of schools and schooling and takes account of different objective experiences and subjective perspectives (ibid). The comprehensive and succinct definition of qualitative research provided by Denzin and Lincoln (1994) adequately summarises the reason underpinning my choice of this research methodology:

*Qualitative research is multimethod in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meaning people bring to them... Accordingly, qualitative researchers deploy a wide range of interconnected methods, hoping always to get a better fix on the subject matter at hand.*

(Denzin and Lincoln, 1994: 2)

As an interpretative researcher, a characteristic of qualitative research (Bassey, 1999), I was interested in describing and interpreting or explaining what I heard, read, and saw in each teacher's practice in the search for deeper understandings of beliefs into

assessment practice, and for obtaining richer theoretical insights. I recognized that it may offer possibilities but no certainties and absoluteness as to the outcomes of events in the future because of the sheer evolving complexities and variations in educational contexts. This brings me to another reason about the appropriateness of the qualitative tradition; that is, it accommodates the nature of the research context of South Africa, one that is undergoing rapid and unpredictable transformations.

### Why case study research

I shall explain why I chose the case study method as a preferred strategy in my study from the plethora of other approaches to educational research such as experiments, surveys and action research. This account will be informed by readings from the academic literature on the topic and my past experience of using the approach.

According to the literature on case studies there are a variety of positions and meanings taken by various authors (see Bassey 1999). It was from this melee of ideas that I was attracted to Yin's (1994:13) view that the essence of case study is that it is enquiry in a real-life context as opposed to a contrived context of experiments or surveys. This resonated with my study that aimed to explore teacher understandings and practices of the assessment policy in their real-life contexts, namely in their classrooms. Yin (ibid) added that it is an enquiry that investigates contemporary phenomena when the boundaries between phenomena and context are not clearly evident. This view is supported by Merriam (1988) who wrote that the variables of the phenomena will not be separated from the context, referred to by Cronbach as "interpretation in context" (10). I could see the link with my research study that focused on current issues in each context, each influenced by different social, ideological, political, economic, cultural and historical forces. It is also about enquiry into a "singularity" (Bassey 1999: 58) meaning that a "particular" (ibid) set of teachers is the focus of the study as illustrated by my research study. I was also drawn by Yin (1994:13) who wrote that case study inquiry:

*[Relies] on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis.*

To summarise, I chose the case study approach because

*It provides ‘thick description’, is grounded, is holistic and life-like, simplifies data to be considered by the reader, illuminates meanings, and can communicate tacit knowledge.*

(Merriam, 1988:28).

Although I was attracted by the positive claims made about case study research in terms of its “uniqueness, its capacity for understanding complexity in particular contexts” (Simons in Bassey 1999:36) I was also mindful of one of its disadvantages, namely the difficulty of generalising from a single case. Simons (ibid) views this as a “paradox, which if acknowledged and explored in depth, yields both unique and universal understanding” (36). I agree with Simons, and I also concur that “living with paradox is crucial for understanding ...To live with ambiguity, to challenge certainty, to creatively encounter, is to arrive, eventually, at ‘seeing’ anew” (ibid). Hopefully this case study would result in a new and alternative understanding of the relationship between policy and practice in the context of educational change.

Since the purpose of my enquiry is to explore and understand the relationship between the new assessment policy and teachers’ assessment practice, my study could be identified as theoretical research, the purpose of which is to describe, interpret or explain what is happening without making value judgements or trying to induce any changes (40). In other words it is a theoretical exploration.

The above account illustrates why I chose a qualitative case study strategy to conduct this research study. It resonated with the rationale, the broad aim or purpose and with the three research questions of my research study. I believe that the meticulous study of specific situations can gradually build theory that could later be tested and extended to a broader set of events.

#### Propositions about deep change – tentative “fuzzy propositions”

This study is guided by three propositions, which are describe as tentative and “fuzzy” (Bassey, 1999: 13). These propositions are informed by my experience as a classroom teacher, teacher educator and education policy maker. These propositions were discussed in detail previously in the conceptual framework on **deep change** that

focused on teacher change in response to the new assessment policy. I use these propositions not as statements that are absolutely true as used by physical scientists in the scientific method described by Karl Popper (1963). These propositions are neither located in nor linked to ‘hypotheses’ as in the quantitative research paradigm where hypotheses are fixed to be tested in controlled settings for pursuing patterns of cause and effects. The purpose of my research study was to explore, learn and understand the relationship between government policy and classroom practice, as opposed to assigning empirical properties to quantitative variables. The propositions I make must be seen as theoretical concepts to be tested in the classrooms of teachers; they are tentative and open for others to follow up and test their trustworthiness. They are tentative statements rather than absolute claims on knowledge; Therefore these propositions reside in the qualitative research paradigm where the qualitative data collected would allow me to consider the deep, often hidden meanings and structures of the life world of teachers as humans as it is experienced individually by each classroom teacher.

Since the propositions are closely linked to each research question, they served as a guiding framework to assist in constructing the research design discussed below.

***Proposition one: Teachers may not have a deep and sophisticated understanding of a new assessment policy even if there is evidence of strong rhetorical commitment to the policy***

The first research question ‘What are teacher understandings of the assessment policy?’ enabled me to test this proposition. The semi structured questionnaire (Appendix F), free writing schedule (Appendix G) and interview schedule (Appendix H) based on the assessment policy probed deeply into teachers’ understanding of the policy. This deep probing, characteristic of ethnographic, qualitative tradition unearthed each teacher’s understandings of the policy. Responses to the second research question were used as supplementary and complimentary evidence to test this proposition because I believe that their classroom practice would be informed by their understanding of the new policy. Based on this analysis the particular proposition could be confirmed or refuted. This is discussed in detail in each case study chapter, namely Chapter Five for Dinzi and Chapter Six for Hayley.

**Proposition 2: *Teachers may not be able to reconcile their own assessment beliefs and capacities with the stated goals of a new assessment policy***

Teachers will react to their perceptions of change in different ways depending on their own guiding beliefs and capacities. My proposition that teachers may not reconcile their own beliefs and capacities about a new policy with the stated goals of the policy is based on the fact that teachers seldom if ever, are provided with opportunities to overtly articulate their beliefs and capacities about new policies. This assertion is supported by House and McQuillan (1998) who observed that the broad goals of reforms remained far removed from the everyday lives of teachers. The way reforms are introduced to teachers is usually by telling them about the goals, aims and principles of the reform (see Chisholm, 2000). Beliefs and capacity are related to will and commitment, the essential requirements that matter in policy implementation (McLaughlin, 1998). I pursued this proposition by focusing on research question 3: “Why do teachers implement assessment in the ways observed?” I constructed interview schedules after I had observed each teacher’s classroom practice. This in-depth post-observation interview schedule enabled me to probe deeply into why teachers assess in the ways observed. The responses from the deep probing as well as the conceptual framework on deep change were used to analyse and explain teachers’ assessment practices in the context of the new assessment policy.

**Proposition 3: *Teachers may find the traditional assessment practices (that is, examinations and testing) to hold greater efficacy in the classrooms than the alternatives required in a new assessment policy***

I assert that their assessment practices will be based on their past historical context and experiences, in other words in ways that they were assessed as students, in ways that they are familiar with, by following the existing traditional practices present at the schools and by the present conditions, opportunities and constraints present in the classroom and the school. In other words they will use assessment in a linear, sequential manner, mostly for grading and promoting students rather than connecting it to teaching and learning. I tested this proposition by employing the second research question: ‘In the context of policy, how do teachers practice assessment in their classrooms? I observed the classroom practices of each teacher using structured

classroom observation protocols (Appendix L), conducted post-classroom observation interviews with the teachers that pursued issues emerging from the classroom observations with the intention of generating information of why they assessed as they did. The data collected was analysed against the intentions declared in the new assessment policy.

In using these propositions to explore and understand the relationship between policy and practice, I must reiterate and emphasize, and as stated previously, that if the propositions prove to be true, I will not use the information pejoratively by ascribing it to teacher deficiency, but rather to various other possibilities. Furthermore, as stated previously, I view teachers as active agents of and for change therefore I treat them as my key informants or 'primary unit of analysis'.

#### Prefiguring my Analytical Moves - Planning the Research Design

I will first describe the initial research design or plan of this research study, which constituted part of my research proposal. In addition to methodological issues it will also focus on theoretical and epistemological issues such as the nature of the research design including the data to be collected, the role of the researcher, and the role of the researched. The purpose of this is to show that the decisions made in the initial research plan and design had to be altered as a response to unforeseen and unpredictable contextual realities and complexities that rear their heads in schools. I raise theoretical questions and challenges around the inherent difficulties of conducting research in unstable contexts such as South Africa, a country caught profoundly in contested, complex and challenging grip of change.

I chose the purposive **sampling** method because I wanted to include teachers and schools who were willing and able to participate in the research study. The sample or key informants for this research study would be two teachers, each from two different, consciously selected schools, and one from a well-resourced school and another from an under-resourced school. These schools are typical of the context of a developing country such as South Africa. This would allow me to make a comparative cross-case analysis between the two teachers, in search of consistencies and differences. Within each school the teacher chosen would satisfy the following specific but varied criteria:

each teacher must be currently teaching Grade 8 Natural Science, qualified to teach science, experienced in teaching Grade 8 Science, confident and enthusiastic, and willing to participate in the research study. Information with regard to teachers' qualification, experience, competence, confidence and enthusiasm would be sought from the recommendations of the principals. Information with regard to willingness to participate in the research study would be elicited from the teachers themselves with the approval of the school principal. This sampling strategy could be viewed as resulting in "theoretical sampling and sampling adequacy" (Morse *et al*, 2002: 12) where the research participants, in this case study, the chosen teachers have knowledge, experience and perceptions of the research topic, in this case study, of the new assessment system. It is a strategy for working with rigour (*ibid.*). The reason for limiting my sample to two teachers was to obtain in-depth qualitative information from each teacher that would provide the opportunity of getting to understand deeply each respondent in terms of their assessment knowledge, understanding and practice. The teachers would be selected based on the subject matter that they were teaching such that there would be congruence between the subject matter taught by each teacher, for example, each teacher would be teaching 'electricity' and 'gravity', or any other relevant subject matter. This would then possibly rule out the variable of subject matter being taught to account for any discrepancies. The rationale for choosing Grade 8 classes was based firstly, on my experience as a classroom teacher and teacher-educator in this particular grade; secondly, since no exit examinations are written in this particular grade the emphasis and focus on examinations and assessment might be reduced, since exit examinations generally demand more attention to examinations and assessment and this could bias the findings. I chose Natural Science because of my own knowledge and experience of science - both as a classroom teacher and teacher-educator of Natural Science.

My **data collection** plan had included various methods to obtain information from the research sites, namely questionnaires, free-writing schedules, interviews - both pre-classroom and post-classroom observation interviews, non-participant classroom observations, records of teachers and learners, and documents. I chose various methods so that methodological triangulation would be possible. That is, information received from the various sources would be used to corroborate or refute one another.

I chose to conduct the major part of the research study in the third term because this is the term that the school and teachers are more settled compared to the other three terms, for example, in the first term schools are generally busy with admissions, new timetabling, new staff, and distributing textbooks and stationery before settling down to serious work, while the second term and fourth terms would be terms when half-year and year-end examinations are written respectively, and this might bias the research findings. I had planned to observe Dinzi from the under-resourced school for three weeks in the third term teaching for example ‘Gravity’ (could be another Natural Science topic), and another three weeks teaching say ‘Electricity’ (or another topic). I would similarly repeat this for Hayley from the well-resourced school, assuming that Hayley would be teaching ‘Electricity’ or the same topic as Dinzi for three weeks, and ‘Gravity’ or the same topic as Dinzi in the third term. In other words I would spend six weeks with each teacher teaching the same science topics. The documents to be analysed were assessment related documents/transcripts from the top five learners and the five bottom learners per school. This initial plan seemed practical, achievable, and responsive to the purpose and the three critical questions of the study.

I presented this research plan that I had titled “A Case Study of Implementing the Assessment Policy in Schools: Research Plan” at the Postgraduate Student Research Indaba held at the University. One criticism was received from a member of the audience who believed that the size of the sample was too small for the study. My response to the criticism was that this study was not a survey that would demand a large sample size, but a qualitative, case study, which required information rich in depth and description, and in context, about this particular aspect of educational life, hence a larger sample size would be irrelevant to the purpose of the study.

I developed a variety of **methods and tools** to collect the data. The rationale behind using this variety of research methods and tools is that it would provide me, a qualitative researcher confidence that the research is rigorous, credible and justifiable as research. I viewed the different data collection methods and tools not only as intimately interrelated and mutually reinforcing, but also as a necessary opportunity for the teachers to produce data in a variety of forms.

Each method and tool was informed by and aligned with each of the three critical research questions. The value of each method and tool is elaborated in the appendices (see Appendix D and Appendix E). These methods and tools were subject to review by my peers and critical friends as additional means of conferring rigour, legitimacy and confidence in the study. In addition the research tools were pilot tested with two teachers. The feedback received from my peers and critical friends, as well as from the pilot process informed the changes made to the research tools.

To respond to the research question: **What are teacher *understandings and beliefs* with regard to the assessment policy?** I chose three data collection, methods, namely,

- A Questionnaire containing both open and closed ended questions to elicit teachers understanding of the assessment policy (Appendix F)
- A Free writing schedule containing both open and closed ended questions to elicit teachers understanding of the assessment policy (Appendix G)
- An Interview schedule that was semi-structured to collect information before the classroom observations (Appendix H).

To respond to the sub question to the first question: How do teacher understandings of the assessment policy compare with the contents of the assessment policy? I chose the three methods mentioned above but added document analysis of the assessment policy (Appendix I).

For research question 2: **In the context of policy, *how do teachers practice assessment in their classrooms?*** I used the following four methods:

- A Questionnaire containing both open and closed ended questions to elicit teachers responses of their assessment practice (Appendix J)
- An Interview Schedule that was semi-structured to elicit teachers responses of their assessment practice before classroom observations (Appendix K)
- Classroom observation protocol to capture how teachers practiced assessment in their classroom (Appendix L)
- Analysis of documents and records to infer how teachers practiced assessment in their classroom (Appendix M).

To respond to the third research question: **How can the continuities and the discontinuities between official policy on assessment and teachers' assessment practice be explained?** I chose two methods, namely:

- Interviews with each teacher after classroom observations to elicit their responses as to why they assessed the way they did.
- Theoretical analysis of the accumulated data within the conceptual framework on deep change in order to explain the convergence and divergence from policy.

This research design was included in my research proposal, which was approved by the university authorities. I was ready to enter the field to collect the data from the two schoolteachers. I intended spending six continuous weeks with each teacher. Entering the world of the two teachers, the key participants of the study, would enable me to study each teacher's perspective about assessment - how their views and understandings were manifested in their speech and actions. I should add that while this narrative, the aim of which is to show how I worked towards achieving methodological coherence, looks linear and neat, I was mindful that in reality the research process characterising qualitative research is anything but linear and neat as displayed on paper. Sampling plans may demand to be treated differently, it may expand or change course; data collection methods may be modified; or data may demand to be treated differently, or the conceptual structure or theoretical thinking initially brought into the study may demand revision, - all responses to the research context that is not static but dynamic and complex. In other words, although I started with a well-formulated research plan or design, I was open to the possibility of the research process being influenced by specific contextual factors.

#### Gaining access to selected schools – Navigating the political bureaucracy

My past experience had informed me that one of the major responsibilities of a researcher conducting research in schools is to obtain official ethic clearance from the bureaucracy, that is, to seek permission from the education authorities to conduct research studies in schools. I first discussed my research study with the Deputy Director General of Education responsible for school education in the General Education and Training Band (Grades R to 9) at the national Department of

Education, (He is my Supervisor at work) with the intention of seeking his formal permission. He consented but requested that I seek formal, written permission from the relevant provincial Head of Department. I wrote the formal letter of request to the relevant provincial Head of Department, which was approved by the said Deputy Director General of Education, and faxed it and posted it to the relevant provincial Head of Department (Appendix A). I followed up telephonically with the office of the provincial Head of Department the following day to enquire whether the fax was received, and was informed that it was received and that I would be receiving a response soon. After two weeks when I received no response from the provincial Head of Department, I telephoned the office again to find out about the response. This time someone else answered and said she knew nothing of the fax and requested that I re-fax the letter, which I did. She confirmed receipt and promised that it would not be a problem, and a response would be forthcoming. Two weeks later there was no response. I telephoned the office of the provincial Head of Department again, and this time I was informed verbally that I could conduct my research and a formal, written letter will be forthcoming. To date I have not received a formal, written letter granting me permission to conduct the research in schools in the chosen province. This begs the question why no written formal response was given despite the promise to do so, and despite the many reminders. My personal experiences in communicating with provincial head offices inform me that there is seldom any coordination among the many officials working in the offices of the provincial Heads of Department. This results in documents being misplaced or lost or falling through the bureaucratic cracks. Furthermore, the staff compliment is rarely stable, for example, on different days of the same week one would find oneself communicating with different people about the same query, only to be told that the person one originally spoke with is not available, or is on leave, or has left. This instability might be one of the many unintended consequences of a rapidly transforming society such as South Africa – or to use the euphemism, the ‘challenges’ facing a young evolving democracy. I decided to use the verbal permission given as valid to conduct the research study.

The Field Experience

Gaining access to possible schools for field work – First Knock or Disruption to my Research Plan

I telephoned several principals of rural township schools and of urban schools as indicated in my preplanning stage as well as in my research proposal to obtain their informed consent to conduct my research study in their school. After I had explained the purpose of the call, explaining the nature of my research study and requesting permission, all responded that they were very busy, but that I should call later. The responses that I received were not as I had hoped. After many unsuccessful attempts to gain access into the schools, and filled with anxiety and despair I informed my Supervisor of my research study about my problems regarding gaining access into the selected, planned schools. I was informed about some schools that might welcome researchers into their schools. I chose two schools, one from an urban township area where it was likely that the school would be under-resourced and one from a suburban area where it was likely that the school would be well-resourced. This choice would ensure different contextual realities as indicated in the original plan.

This difficulty of gaining access into schools to conduct the research study knocked my assumption of gaining access easily into schools to conduct classroom-based research. The lesson for me here is that gaining access to schools that are willing to participate in research studies should not be taken for granted by researchers conducting school-or classroom-based research. Rather the selection of the research site should be problematised. The question is why were principals unwilling to allow me access to conduct research in their schools. Was it due to subtle forces they only knew? Was it because of the potential a research study has of revealing the workings of the schools and holding it up for close-up scrutiny? Was it fear of research being a kind of ‘inspection’ where their school and its practices would be observed and analysed by an outsider in ways that may be intimidating? Was it seen as threatening to the autonomy and professionalism of the school, especially in the controversial context of teacher and school evaluations? Why was promising anonymity and confidentiality not sufficient? Another lesson was the power of the principal in the decision-making process in terms of selecting the research site. Having personal or

professional connections with principals seem to make the process of gaining access into a school easier.

#### Gaining access into the ‘township school’ – School A

##### Terms of Entry

At the beginning of May I had telephoned the principal, informed him about my research study, and requested his permission to use the school and a Grade 8 Natural Science teacher who was qualified, experienced and competent to teach science. He indicated his willingness to participate, and agreed to nominate a Grade 8 Natural Science teacher in terms of the criteria mentioned. We agreed to meet to discuss the issue formally with him and the nominated teacher. He requested that I liaise with his secretary to set up a date for the meeting. After several unsuccessful attempts to set up the meeting in May and beginning of June, the principal agreed to meet me at the beginning of the third term. The third school term for this province had been changed to accommodate an international conference - the Johannesburg World Summit on Sustainable Development that had been scheduled for September 2002.

On the first day of the third term, I telephoned the principal to make an appointment to meet formally with him and the nominated teacher. He informed me that he would be available to meet with me two days later at eight thirty in the morning.

##### Entering the field - School A

I arrived as agreed with the principal for my first visit to the school. I had rehearsed how I would conduct myself and what I would say to the principal and to the teacher because I believe that how we conduct ourselves as researchers and how we interacted with potential research participants would inform them as much about us as researchers as would our words. I needed the principal and the teacher to volunteer to consent to and participate in the research study, and I believed that first impressions count. I also wanted to develop a mutual relationship based on trust and respect. I also recognised the unequal power relationships that existed between the principal and the teacher whose consent I needed, and me as researcher. As a researcher I needed their permission and willingness to conduct the research in the school hence they had

power over me. If they were not willing to participate that would mean continuing the search for another willing and suitable research setting. But I did not allow this recognition to discourage or to disempower me, rather to be cognizant of it so that I could address it effectively by being open and honest. I was also aware that as an ‘outsider’ researcher, I did not have much to offer the school in return beyond maybe a sensitive, listening and non-judgemental ear.

I met with the school secretary who directed me to the principal’s office. I stood outside the narrow passage before meeting with the principal at 08:30 in his small office. After exchanging introductions and greetings, I explained the nature of my research study in detail, assuring him that the goal of the research study was not to critique or evaluate the school or the nominated teacher, but to explore, to learn and to understand the relationship between policy and teachers’ classroom practices in the context of the newly released government assessment policy. I assured him that I would neither interfere, impose nor intrude into the activities of the school. I added that my role and status as a researcher for a doctoral degree was that of a learner rather than that of an expert and critic of the school and its staff. I promised strict confidentiality and anonymity, and further assured him of being sensitive to the significance of the data collected from the school, and promised that it would not be misused or misinterpreted. I explained in detail the actual terms of entry for the research study, that as a classroom-based case study it required that I visit the school every day in the third term for the teacher to complete detailed questionnaires, a free-writing schedule, to conduct in-depth interviews with the nominated teacher, both pre- and post-classroom observation interviews, to observe the selected Grade 8 Natural Science lessons of the nominated teacher, to observe and collect assessment related records and documents from the school, the nominated teacher and the selected Grade 8 Natural Science learners. I handed him a formal letter requesting his permission to conduct the research study in the school (Appendix B). His response was very positive and he expressed his willingness to participate by agreeing verbally to my request. In fact he shared with me his concern about the challenges facing education in South Africa and about the ability of the government to deliver on its educational mandate. He also added that he believed that research would contribute to our understanding of change in our struggling democracy. This disclosure from him at our initial meeting suggested that he not only valued research, but that he trusted me

as a researcher. This was important because achieving a trusting relationship with the research participants is central to the success of any research study (Howe & Moses, 1999). It creates opportunities and potential for greater sharing of information (ibid). He reported that this particular school faced many challenges related mainly to poverty. After thanking him for his willingness and openness towards my research study, I enquired whether he or the teachers were aware of and had the copy of the new assessment policy that was the focus of the research study. I showed him a copy of the new assessment policy. He replied that the Head of Department for Science and the science teachers would have the copy. He then informed me that the Grade 8 Science teacher who he had nominated was not in school on that day as she and some other teachers of the school were attending a training session arranged by 'Head Office' (meaning the provincial Department of Education). He requested that I return on the following Monday at 09:00. He promised that he would make arrangements for me to meet with the nominated teacher.

After the meeting I completed the 'Contact Summary Form' (Appendix N). I was concerned that the principal had not been aware that the nominated teacher would be attending a training session and would therefore not be at school on the day he made the appointment to meet with me. Why was this so? I now speculate. It might be possible that the school received the invitation for the training session late, or maybe it slipped his mind, or maybe both. This lesson reminded me of the unpredictable nature as well as the complexities of conducting school- and classroom-based research.

The general appearance of the school characterised that of a typical township school. The pathway from the road into the school was un-tarred therefore the surroundings were very dusty. The administration building was small, with very small offices to house the management team, and a small staffroom. The small offices of the principal, the management staff and secretary were sparsely furnished. There were many learners outside the classrooms.

First Meeting with Teacher Dinzi<sup>2</sup>

I arrived at school A at 08:45 as requested by the principal. The secretary informed me that the principal was not in. On enquiring whether I could meet the Deputy Principal I was informed that both Deputy Principals were teaching. I was requested to wait in the principal’s office. On the principal’s table I observed a document titled: ‘GDE Annexure A: Continuous Assessment Portfolios - 2002: School Principal’s Report Form’ with a line for the “Term” and a table as illustrated below:

Tick subject	Subject	Number of tests completed	Number of assessment tasks completed

I had enquired later about this document from both the principal and the research teacher who reported that it related to the Grade 9 classes only.

About forty minutes later, a Deputy Principal came into the principal’s office. I informed him about the purpose of my visit. He reported that he was neither aware of my research nor of my meeting with the principal. He called for the Head of Department (HOD) of Science. I repeated the purpose of my visit to her. She responded that she “was not sure of this as I just returned from USA on Friday” (personal communication). She said that she would need to discuss the matter with the teachers to find out whether they were willing to participate in the research study. The second Deputy Principal had joined us, and she also reported that she was not aware of my research study or of my appointment with the principal. She added that if the principal had agreed to the research study then the HOD needed to talk with the relevant teacher. The Deputy Principals and the HOD then left the principal’s office leaving me feeling anxious and helpless. The principal arrived thirty minutes later. He apologised for being late stating that he had to visit the optician. He left the office to call the recommended teacher who he introduced to me. I repeated the nature of my research to her, my request for her participation, as well as the expectations from her and the implications thereof. She agreed to participate in the research study but added that I should be aware that she and other teachers were “focusing on grade 9 because

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<sup>2</sup> Pseudonym used for the sake of confidentiality

of the GETC<sup>3</sup>, and not so much on Grade 8s” (personal communication). When I requested for her timetable, she left the principal’s office and returned about thirty minutes later with her timetable. I had asked both the principal and the teacher whether they had any questions or comments regarding the research study. Both had none. The principal left his office. I gave Dinzi the two Questionnaires (Appendix F and Appendix J). We went over them together while I explained in detail what was expected. She then perused over them herself and reported that she understood the contents and would have no problems in completing them. I emphasised that these questionnaires had to be complete before the interview and classroom observations. She reported that she would need two days to complete it. She requested that the pre-observation interview take place during her non-teaching period at the school. She reported that she was teaching ‘density’ to her Grade 8 Natural Science class. I thanked her for her cooperation, and provided her with my telephone number to call if she had difficulties answering the questionnaires.

There were many dilemmas that struck me at this meeting. First, the seemingly lack of communication between the principal and the other members of management about my research study. Why? I speculate again. Maybe he did not have the opportunity to inform them as yet, or maybe he did not think it necessary. Second, the teacher’s remarks of focusing on grade 9 classes and GETC. What did this mean? Why? Does this indicate that the teacher’s focus of teaching, learning and assessment was on classes that wrote exit examinations, while other classes that did not write exit examinations received less attention? Did this support my rationale for selecting Grade 8 classes in the research study, that is, because no exit examinations were written in this grade, a relative bias towards examinations may be excluded? Third, I was surprised that she took thirty minutes before she could provide me with her time table. Why? Maybe my assumptions that teachers have their timetables readily available needed to be questioned. I had to remind myself again of being cognizant of the complexities of conducting school- and classroom-based research.

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<sup>3</sup> GETC is an acronym for the General Education and Training Certificate awarded at the end of the General Education and Training Band, namely at Grade 9, signifying the successful completion of the compulsory attendance phase of schooling in South Africa.

Gaining access into the ‘suburban school’ – School B

In the middle of May I had telephoned the principal, explained the nature of my research and my request for permission to use her school and a qualified, experienced and competent Grade 8 Natural Science Teacher. She agreed but informed me that I should call her at the beginning of the third term, because the second term was a very busy term.

On the first day of the third term, I telephoned the principal to make an appointment to meet with her. We agreed to meet two days later.

Entering the field – School B and First Meeting with Hayley<sup>4</sup>

I arrived at the school as requested by the principal, prepared for this meeting as I had been for School A described above. The secretary ushered me into the principal’s office. We exchanged formal introductions and greetings. The principal formally agreed to the research study and had nominated a teacher. She informed me that this particular teacher was qualified, experienced and competent to teach science, and was teaching one class of Natural Science, namely Grade 8 D. She added that the other teacher who was teaching the other grade 8 Natural Science classes was unqualified to teach but had a science degree. I provided the principal with a formal letter requesting permission to conduct the research in the school (Appendix C). The principal had shared some documents with me, which I intended recording in the ‘Document Summary Form’ (Appendix O). I enquired from her whether she or the teachers had a copy on the new assessment policy, and I showed her a copy of the policy. When she looked at the date on the cover of the Government Gazette indicating the Assessment Policy, she replied that she did not have a copy because that particular policy was outdated - it was dated ‘1998’. She added that it had been relevant during the time of the previous Minister of Education, namely, Professor Bengu, but that when he left and a new Minister of Education, namely Professor Asmal was appointed that policy was changed. She did not have a copy of the changed policy as such but did have many related documents that she had given me.

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<sup>4</sup> Pseudonym used for the sake of confidentiality

The nominated teacher then joined us. I explained the nature of my research study, the expectations from the school and the teacher, as well as the implications thereof. Both the principal and Hayley agreed to participate in the research study. The principal however requested that I return the following day to finalise arrangements with Hayley who informed me that we could meet the following morning during her non-teaching time in her classroom. I enquired whether they had any questions regarding the research study. They had none. I provided them with my contact details should they need to contact me. I thanked them for their time and for granting me permission to conduct the research in the school.

I completed the Contact Summary Form (Appendix N). I was puzzled by the response of the principal that the Assessment Policy had been replaced. Was it replaced? When? Why? I was unaware of this alleged change but was open to the possibility that due to the many changes affecting education I may have slipped up. I followed up with the Curriculum Section as well as with the Legal section in the national Department of Education with regard to the status of the new assessment policy, the focus of this research study. I was relieved that it had not been changed. But this begs the question: Why did the principal believe that it had been changed? What are the implications of this belief on implementation of the policy? Could it be related to the Review of Curriculum 2005?<sup>5</sup> Could it be related to lack of relevant information from higher authorities? Could it be related to conflicting information? Could be related to too much information that seems confusing? It was beyond the scope of this research to pursue these questions.

I was struck by the attractive appearance of this school – the first impression indicated that it was a well-resourced school. The visible spaciousness of the school was appealing and inspiring. The large administration building housed a large reception area with attractive tables and chairs; fresh flowers on the table, and beautifully draped curtains. Two secretaries working in a large, well-furnished, well equipped office received visitors and students. The administration area was strongly secured with burglar-guarded gates that were controlled by the secretaries. The large garden

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<sup>5</sup> In 1999, the second democratic Minister of Education, Professor Asmal, had commissioned the Review of Curriculum 2005, a new curriculum for South African Schools introduced in 1997. The Report of the Review Committee was released in May 2000 (see Chisholm, 2000). This resulted in a Revised National Curriculum (see Department of Education, 2001)

and playgrounds was attractive and well-maintained. There were no students visible outside the classrooms. This appearance was a conspicuous contrast to School A in the township.

#### First meeting with Hayley

The following morning, I met with Hayley in her classroom, which happened to be a laboratory. This was her non-teaching time. I explained again the purpose and nature of my research study, as well as the expectations and demands it would make on her time. She replied that she was very happy to participate and added that she was glad that somebody was doing research to find out whether policies are working in the classroom, because her experience was that she and most teachers in the school were “confused” (personal communication). She shared her timetable and some of her records with me. I made a note of these records that were to be analysed later using the ‘Document Summary Form’ (Appendix O). I provided Hayley with both Questionnaires (Appendices F and J). We reviewed them together while I explained in detail what was expected. She then perused over them and reported that she understood the contents and would not have problems responding to them. We made arrangements for the first pre-classroom observation interview and for the commencement of the classroom observations of her Grade 8 Natural Science class. She reported that she was teaching ‘Energy and Change’. I thanked her for her cooperation, provided her with my telephone and fax numbers to call me if she had difficulties answering any questions.

I was extremely pleased at Hayley’s response to the research study. She seemed willing and welcoming. She had prepared for my visit by having all her files and documents ready for me to view. She seemed very open to share her work with me. To me her behaviour made a statement about both her willingness and commitment to participate in the study and her trust in me as a researcher. Her ‘large, thick files’ with documents overwhelmed me.

Second Knock or Disruption to the research plan

After the first meetings with both Dinzi and Hayley I realised that the subject matter each was teaching differed. Dinzi of the township school was teaching ‘Density’ which I traced to be related to the theme ‘Matter and Materials’ indicated in Natural Sciences Senior Phase Policy Document (Department of Education, 1997). Hayley from the suburban school was teaching the theme ‘Energy and Change’ indicated in Natural Sciences Senior Phase Policy Document (ibid.). I realised that my simple and neat plan of the two chosen teachers teaching the same subject matter had been naively conceived. This knocked my assumptions regarding uniform subject matter being taught by two teachers. I decided that I would continue but would make this fact known upfront in the research study – that the subject matter of each teacher was different and this could or could not affect their assessment practices. Closer analysis of both the Assessment Policy and the Natural Science Senior Phase Policy Document revealed that the different themes taught would not alter the assessment practices because the specific outcomes, the assessment criteria, range statements and performance indicators were the same for the different themes (ibid.). What would differ were the key concepts and phenomena of each theme.

Negotiating Classroom Observations and Interviews – Third Knock or Disruption to my Plan

I realised that it would not be possible to observe each teacher for two sessions of three weeks each as indicated in my initial plan. Circumstantial realities demanded that the two teachers be observed and interviewed simultaneously in the third term. This meant that I had to analyse the timetables of both teachers to determine a schedule for the interviews and classroom observations. From the timetables obtained from each teacher I developed a schedule for the school visits to each school. I observed that there was a clash on Tuesdays, that is, the teaching times of both teachers coincided. I decided that I would alternate the classroom observations between the two schools on Tuesdays. I realised that this could create gaps in terms of continuity of observations. I addressed this dilemma by enquiring from each teacher what each did on the unobserved days, as well as requesting the teachers to audiotape the lessons for me after negotiating this request with them.

With regard to the interviews, I had negotiated places and times that were convenient for each teacher. Some would be conducted in school during the teachers' non-teaching periods and after school, others outside school during hours and venue convenient to the teachers.

### Data Collection and Storage

#### Systematic recording of data

I kept detailed written records of what I observed and heard, and of documents received from each teacher for each visit in two separate journals, one for each teacher. The date, time and place were noted. I created two files in my computer, one for Dinzi and one for Hayley. I simultaneously created hard files for each teacher. This was the start of the building of a case record for each teacher. For each teacher I created a sub-file in my computer, as well as hard copies. Each sub-file contained data from each teacher in line with each research tool, for example, 'Questionnaire A' meant that this was a response to the questionnaire from Dinzi and it went into the sub-file of Dinzi which was clearly labelled 'Questionnaire A. This procedure was repeated for all the other data sources for both teachers. As I engaged in this exercise, ideas about the trustworthiness of the data, issues for further exploration and modes of analysis emerged. I had inserted annotation notes where follow up was necessary, the nature of the follow up and when insights were forthcoming. This process not only contributed to the initial stage of data analysis, but it also stimulated me to make initial, temporary speculations regarding the outcomes to the research questions.

#### Profile of the Schools and Teachers

I developed detailed profiles of each school and teacher by using information from the contextual information form (Appendix P), contact summary forms, questionnaires, free writing schedules and during the classroom visits. These profiles were used to explore and understand the contextual realities of each teacher. The contextual realities of each teacher would be used to offer and support explanations for their assessment practices. These profiles are provided in the chapters on each case study teacher.

### Questionnaires

I administered two set of questionnaires simultaneously to each teacher to complete prior to the classroom observations. The first set of questionnaire (Appendix F) was aimed primarily to elicit information about their understanding of the assessment policy, the focus of critical question one. Some questions elicited information about the teachers themselves. The second set of questionnaire (Appendix J) aimed to collect information about how the teachers practiced assessment in their classrooms, which was the focus of critical question two.

Responses to these questionnaires served as the starting point of the data analysis and also served as a platform from which other fine-grained, deeper questions emanated. As soon as I received the questionnaires from the teachers I began preliminary analysis of this data, primarily to capture their understandings and to guide me into probing deeper into their responses during the follow-up interviews, and to add to the construction of the profile of each teacher and school. The gaps noticed were followed up. Time was reported to be the primary constraining factor in completing the questionnaire. The open-ended questions were very briefly answered, contrary to what I had prepared and hoped for. The nature of these responses demanded that these issues be followed up in depth in subsequent interviews.

A revealing result of the initial analysis of the questionnaires and its consequent oral follow up was that neither of the teachers had been aware of, or seen or had a copy of the gazetted National Assessment Policy document - the specific policy used in this study as means to explore and understand the relationship between policy and practice. Dinzi had a copy of the Draft Assessment Policy from the provincial Department of Education (Gauteng Department of Education, 1999), which Hayley did not have; Dinzi and Hayley had copies of 'Circular Number 5/2000', the topic of which read "National Assessment Policy as it relates to OBE and the implementation of Curriculum 2005 and Assessment in GET Grades". Hayley reported that she had "lots of documents" (response to questionnaire 1 and personal communication) related to assessment and did not know "which policy" the study related to (personal communication). Dinzi did not have copies of similar documents. This begs the

question about the unequal distribution of assessment related documents to different schools and teachers. Why did the selected schools and teachers not have a copy of the gazetted National Assessment Policy? Why did Dinzi have a copy of the Draft assessment policy of the provincial Department of Education and not Hayley – both from the same province? Why did Hayley have so many assessment related documents that Dinzi did not have despite both being in the same province? How would this affect implementation of the new assessment policy? This last question will be pursued further in the concluding chapter.

This revelation was a further knock to my assumption that each school would have copies of this gazetted National Assessment Policy as indicated in my initial research plan. It made me question my assumption - was my assumption naïve or was it valid? How would I know? I suppose I believed that in our educational change landscape with the sounds of Curriculum 2005 and OBE so loud, this new assessment policy, an inherent part of the new curriculum would at least be in the schools, if not with teachers. But I did not change the research questions that were based on the gazetted National Assessment Policy because national policies are foundations that guide and inform provincial policies as indicated in the National Assessment Policy (1998:7):

*This new assessment policy for the General Education and Training Band, alongside the new national curriculum framework, provides the pedagogic basis for our new education and training system. It will guide the provincial education authorities in designing their own assessment policies and will therefore become a vital instrument for shaping educational practice in the thousands of sites of learning across the length and breadth of our country.*

*...[Over] the next many years we will promote this policy ...Provincial departments of education will develop assessment guidelines based on this policy for use ...*

(Emphasis added)

### Free writing schedules

Before the classroom observations, but after receiving the completed questionnaires, I administered the free writing schedule to the teachers (Appendix G). It allowed teachers to provide information that they might not have written in the questionnaires or said in the interviews. This free writing schedule was used as a triangulation tool to corroborate information received from the questionnaires, interviews, classroom

observations and documents, as well as to construct questions to follow up later for greater depth of information.

### Interviews

I conducted personal, face-to-face interviews with each teacher before classroom observations and after classroom observations. The interviews provided the discursive space and opportunities for teachers to reveal their understandings, beliefs and actions in their own words.

#### Pre-classroom observation interviews

The interviews were semi-structured explorations of their understandings of the assessment policy. The purpose of this interview was to respond to the first critical question, namely: *What are teacher understandings and beliefs with regard to the assessment policy?* This interview was shaped primarily by the semi-structured interview protocol developed (Appendix H) that provided the framework within which the teachers could express themselves in their own terms. Supplementary and complementary questions were added as the need arose to probe deeper into respondents' views. These interviews were conducted in the school/classroom of the said teachers at their request. The interview lasted from thirty to sixty minutes depending on the availability of the teachers. I had to be flexible to suit the particular conditions of each teacher. With the permission from each teacher the interviews were audio-taped.

At the first and subsequent audio-taped interviews, I ensured that the teachers felt comfortable and at ease by explaining the purpose of the interview, assuring them that this was not a critique of them personally, and promised strict anonymity and confidentiality. These interviews saw me poised with the list of questions seated opposite the teacher as suggested by them. This arrangement enabled me to make face-to-face contact with each teacher in the hope that the interviewees would not feel nervous and intimidated. At first each was nervous but gradually the nervousness gave way to candid responses. I tried to make running notes while listening to the interview but found this extremely challenging. Making eye contact with each

teacher, and showing that I was appreciating their responses, and simultaneously writing notes was extremely difficult. I decided to abandon writing detailed notes and rather focused on the teacher's responses. However, when I noticed something striking and relevant in terms of the interview, I made a note of it. For example when a teacher made a statement like "new ways of assessing" (interview notes) and I probed further requesting the teacher to mention the new ways and explain how she used it in her class and its consequences, I noticed a conspicuous feeling of anxiety and nervousness – this was noted. The question it raises is why did the teachers feel anxious about responding to 'why' questions.

These interviews resulted in uneven outcomes. The interview with Hayley from the suburban school was successfully completed because she had provided time during her non-teaching periods and after school to complete it. However, with Dinzi, from the township school, it was not possible to complete this interview before the classroom observations because she was unable to find the time to accommodate the interviews. The question is why? What was it about Dinzi in school A that prevented the completion of the interview? Were there inherently unique and complex contextual forces at play, and what were they? I realised that the issue of the unsuccessful attempts with Dinzi was not simple but might be intricately woven to political, social, personal and especially historical contexts. I hoped that data from the other data sources would help compensate for the gap in the data collected from this interview with Dinzi.

The audio-taped interviews were transcribed verbatim. Initially I started the torturous process of transcribing, but soon gave up as it was too time-consuming. I recognised that these tapes were part of the heart and soul of the study, the hard data about, not only what, but about how each felt at the moment of the interview. However, since I personally conducted the interviews and made brief notes during the interview, I did not believe that the quality of the data would be compromised if I outsourced the transcriptions, so I decided to have the tapes transcribed by qualified transcribers. The audiotapes were transcribed verbatim and the transcriptions were shown to each teacher for validation.

### Post-classroom interviews

I conducted many small post-classroom interviews that were informed and shaped by what I had observed in each teacher's classroom and school, and by each teacher's responses to the questionnaire and free writing schedule. This allowed me to uncover the outer layers of perceptions and go deeper to discover the world below, perhaps a different world to gain new and different insights. The results were different for each teacher, which I describe below.

#### Dinzi from the township school

This teacher was unable to provide the time for the many interviews that I hoped to conduct to elicit her responses about why she practiced assessment the way I had observed. This resulted in limited post-observation data from this teacher. This raises questions: Why was she unable to provide the time for the interviews despite promising to do so? Was she unwilling to provide the time, and if so why? Did the relationship between the researcher and researched change, and if so why? Did I as a researcher play a role in this change if there was a change? Did she now view our relationship as polarised with different motives, priorities and perspectives, that is, me as a doctoral student-researcher focused on making a scholarly contribution to knowledge, and her as teacher focused on the daily process of educating the youth? How could I know? How does a researcher address this issue? Will this compromise the integrity, rigour and confidence of the research study? I felt helpless, disillusioned and intimidated until I discussed the issue with my Supervisor and critical friends who advised that I continue the study with the data sets that I managed to collect from this teacher.

#### Hayley from the suburban school

I conducted many interviews with Hayley based on my observations of her assessment practices, her records and her learners' records. Some of these interviews took place in the school during her non-teaching times, and after school, and some in my house, at her request. This resulted in a fuller set of data for this particular teacher than for Dinzi. This raises theoretical and methodological questions: Why was it

possible for Hayley to provide the times for the interviews? Why were the data sets from Hayley fuller and deeper? Did her contextual realities frame her responses and how? What was her view of our relationship? Did this impact on her decisions to make the time to respond to the interview questions? Would this affect the research study, and how?

The process and procedure I followed to conduct this interview after classroom observations were similar to that for the pre-classroom observations in that I ensured each teacher felt comfortable and was not nervous. Each interview was audio-taped with each teacher's permission. I also made brief notes during the interview to capture salient features of the interview process. I tried to ensure that the note-making process did not adversely affect the process of interviewing by continually making face-to-face contact with them during the interview process. The audiotapes were transcribed verbatim and the transcriptions were shown to each teacher for validation.

#### Follow up visits (Examination, recording and reporting)

As a result of setting up dates for the follow up interviews in the fourth school term I was informed by each teacher that they were very busy preparing for the November examinations. I decided that I would visit the two schools during this time to obtain information and relevant documents about the November examinations and the process of assessment during this period. This was not part of my initial research plan, but I felt that it was important because the November examination is part of the assessment system. However my observations during this period were limited because of my work schedule as a full time employee. I had to find gaps in my work schedule to rush to the schools to gather data. From each school I collected the following:

- The examination time table, including grade 8 Natural Science;
- The question paper for Grade 8 Natural Science and the marking memo,
- The mark sheet of the observed Grade 8 Natural Science class
- The schedule information as required by the District and provincial Department of Education;
- Reports of learners, samples given by the teachers.

The purpose of this exercise was to explore how this examination was related to each teacher's understanding of the assessment policy, and to explore the reasons for the observed activities, and whether they reflected changes as intended by the new assessment policy.

I interviewed each teacher about each aspect of what I had collected and observed with respect to the November examination. These interviews were audio-taped, transcribed verbatim and given to each teacher for validation.

### Classroom Observations

The purpose of the classroom observations was to elicit information in response to the second research question, namely: **In the context of policy, how do teachers practice assessment in their classrooms.** It would also assist me to make inferences regarding the second critical question, namely: **What are teacher understandings and beliefs with regard to the assessment policy?**

I was a non-participant, outsider observer – a 'fly-on-the-wall'. I had to extend the observations into part of the fourth term because of disruptions to observations in the third term brought about by contextual realities of the school. This is another knock or disruption to the original plan. However each teacher was willing to accede to the arrangement. Each teacher's classroom observation will be described separately.

### Observations in Dinzi's classroom

I observed seventeen classroom lessons in Dinzi's classroom over a period of seven weeks, five in the third term and two in the fourth term. At the first observation lesson I had been requested by Dinzi to sit in the front right corner of the classroom. This seemed to be the only place that was available because the classroom was relatively small compared to the number of chairs and desks in the classroom. Dinzi informed me that there were fifty learners in this Grade 8 Natural Science class although the average number that I observed was forty learners. Even for forty learners the classroom lacked sufficient space. One of the seventeen lessons had been conducted in the science laboratory. I made detailed running notes of the observed lessons,

audio-taped the lessons and completed the prepared classroom observation protocol that captured the teacher's assessment practice. These were given to the teacher for validation.

Dinzi reported that she did not have a Grade 8 Natural Science preparation file as yet but that she was in the process of preparing one, and added that a temporary teacher who had since left the school had taken the preparation file. I assumed that there had been a Grade 8 Natural Science preparation file that the said temporary teacher had taken with her. I consequently learnt that the temporary teacher had taught this particular Grade 8 class in the second term only because the school had been understaffed. However the provincial Department of Education had terminated the contract of the temporary teacher at the end of the second term. So the temporary teacher who I was given to understand prepared her own preparation file for this Grade 8 Natural Science class left the school without returning the preparation file. The Head of Department (HOD) reported that she was not at school during that time therefore she could not ensure that the preparation file was returned.

I also attended and observed a Natural Science Learning Area meeting during the course of the observation period in the third term. This was important because it enriched the contextual characteristics of this case study.

#### Observations in Hayley's classroom

I had observed twenty lessons in Hayley's classroom over a period of seven weeks, five in the third term and two in the fourth term. Hayley had agreed to the extension of time. This was a knock to my initial plan as stated for Dinzi above.

At the first observation lesson I had been requested by Hayley to sit at the back of the laboratory. I made detailed running notes of the observed lessons, audio-taped the lessons and completed the prepared classroom observation protocol.

Hayley had a comprehensive and detailed lesson preparation file.

### Records and Documents

I collected a variety of learner and teacher records from each of the teachers, although not equally as will be indicated below. Each record and or document collected was to be analysed in terms of specific criteria (see Appendix M).

### Learners' Test Records

Both teachers had informed me that learners had written tests on pages that were supposed to be pasted into the learners' workbooks/notebooks. Each teacher reported that they did not see the need to have a separate book for tests, that it was more useful to have the tests with the work/notebooks. I collected copies of test question papers from Dinzi and copies from Hayley. The purpose of this was to explore whether the tests reflected each teacher's understandings of the new assessment policy and whether the intentions of the policy were being achieved. These were to be analysed later using the analysis framework developed (Appendix M). I also used them to construct questions for the follow-up interviews.

### Learners' work/notebooks

I collected random samples of learners' workbooks from each teacher's class. The purpose of this was to explore whether learners' note/workbooks reflected the teachers understandings and practice of assessment. I constructed follow up questions after analysing the workbooks in order to find out why they assessed the way they did.

### Learners' assignments

I collected two sets of assignments, randomly selected, from Hayley's class only. Dinzi reported that her class had not completed any assignments. The purpose of this was to explore whether they reflected both the teachers' understanding of assessment as well as how they practised assessment. I constructed follow up questions after analysing the workbooks in order to find out why the teacher assessed the way she did.

### Learners' Reports

I collected samples of the June and November reports of learners from each teacher. The purpose of this was to explore whether the reporting process was aligned with the teachers understandings of the policy and with the new policy intentions.

### Case Records and Audit Trails

I developed a case record for each teacher, that is a case record for Dinzi and a case record for Hayley, and developed audit trails for the study. The audit trail points to the trustworthiness of the study. The audit trails could also be provided to other researchers to enable them to validate or challenge the findings, or construct alternative arguments.

### Pitfalls and problems - Challenges and lessons learned during data collection

A fundamental issue that emerged is the dual role that I played in this study, one as a researcher and another as a teacher development agent in a national government department. While these different roles are complementary, allocating adequate time to each role proved to be extremely challenging, especially when the role of the teacher development agent demanded much travelling to other provinces, working with international sponsors on their terms, and managing national teacher development projects. Does this allow for slippage of rigour? The lesson for me is engaging in qualitative case study research for a doctoral programme demands focused attention and therefore should be pursued full time, if possible, after negotiation with the employer and supervisor. This arrangement will not only enhance the quality of the study but would also prevent any compromises that could result as a result of the divided attention between employment demands and research study demands.

During the process of data collection I had been amassing unequal amounts and quality of data from each of the research informants. I began to grow anxious fearing that the rigour of the research study may be compromised, despite reminding my self that as a researcher my role was “not an automation shorn of human interests and

programmed to execute a design devoid of socio-political consequences” (Kemmis, 1980 in Bassey 1999: 25). I was also cognizant of the observations of Valero and Vithal (1998: 1) that “disruptions to carefully conceived plans are the norm rather than the exception” in research contexts that are undergoing fundamental transformations politically, socially, economically, culturally and educationally. The lesson for me as a researcher was that being aware of what the academic literature observed and suggested was insufficient to cope with the dilemma I was experiencing. I am not suggesting that it was not helpful, it was, but I found that I had to struggle with my own conscience and feelings about the unequal data I had collected. I realised that my research plan was not devoid of socio-political underpinnings; I foregrounded the complexity of conducting research within the shifting ecology of an unstable, developing social contexts; I was also open to the possibilities of changes to the research design. But I was still struggling with the questions: Did I make false assumptions about the conditions that actually existed in schools? What did I overlook? Would the unequal data sets compromise the rigour, legitimacy, credibility and confidence of the research? I must add that this made me feel helpless as a researcher. Until I decided to discuss it with some of my critical friends and my Supervisor who advised and assured me that I had sufficient data sets even if unequal, to continue with the data analysis and the research study.

Being a non-participant observer in the classrooms, I often noticed learners make mistakes that distorted and fatally impacted learning. Should I just watch what was happening or go forward and help the learners (and teacher)? This dilemma proved extremely challenging - my intention as a non-participant observer and the seduction of being drawn into the classroom dynamics. I had to make the tough choice informed by the principles and standards of being a non-participant researcher or an outsider to this classroom milieu. I could not interfere or intrude – a seemingly simple and single answer to this complex phenomenon, but one that caused much angst.

#### Shifting the weight and analytic move to data analysis

How was I to analyse this corpus of research data yielded from the research field? The data sets included data from the questionnaires, free-writing schedules, interviews – pre-and post-classroom observations, records and documents from teachers and

learners, and documents from the principal of one school and documents from the Science HOD from another school.

Early during the conceptualisation of the research study I had been confronted by the dilemma of deciding how to analyse the data; should I analyse it manually as I had done in the past, or use a computer software programme, a process that was totally new to me and would demand much learning and practising time. I had discussions with groups of researchers who used one or other of the two approaches of data analysis in order to assist me make an informed decision. I heard different views, some pro computer and some anti-computer analysis - and this was understandable. For example, those who used the computer software reported that it took a few clicks of the mouse to find something rather than scratching through a pile of papers. I also went to a two-day 'training session' at the university to learn how to use a computer software programme, namely AtlasTi, to analyse qualitative data. It was my experience at this 'training session' that finally informed my decision not to use the computer software because firstly, it was too time consuming to learn, and time as a part-time researcher is a scarce resource. I must add that this had nothing to do with not wanting to learn something new. I had to be pragmatic and realistic. Working simultaneously as a part-time researcher and full time employee of a government department made it impossible to find the time to learn this new approach to data analysis, even though I wanted to. Secondly, I was informed that the limited number of qualitative researchers experienced in the using the computer software programme to analyse data, did not have sufficient time to support me as a novice learner if I decided to use the computer software to analyse my data. I realised that as a novice learner I would demand much and sustained support to be successful. Thirdly, and this is my own untested intuitive feeling of the perceived 'coldness', and the linearity, limited lateral and creative thinking and processing of data by a computer programme.

Before the actual analysis began, I made plans to arrange the data as I collected them into a logical order by placing it into two different arrays, one for each teacher. I constructed a matrix of categories related to each research question with its accompanying research method and tools in which to place the data. I created a data display wall chart based on each research question for each teacher to examine the data and to tabulate the frequency of different events and to place the data in a

temporal scheme (Miles and Huberman, 1994). Two general strategies were used, one relying on and following the critical research questions that led to the case study and developing a description for each case (Yin, 1994), and second, including pattern making and explanation building (Miles and Huberman, 1994; Yin, 1994), that constituted the second level of analysis.

As I collected data I simultaneously started the initial or first level of analysis. This entailed the process of reduction, display, and verification (Miles and Huberman, 1994). This early start to analysis was informed by the advice of Cohen, et. al., (2000) who advised that it reduced the problem of data overload by selecting out significant features for future focus. As data from the questionnaire was collected I coded it in line with the three critical questions and its linkages to the assessment policy and the conceptual framework. Let me illustrate. For research question one, ‘What are teachers understandings of the new assessment policy’, I asked a sub-question in the questionnaire: “What do you think are the main reasons why the new assessment policy has been introduced into our schools?” Dinzi responded:

*...[In] the perception that all learners can learn and succeed although not necessarily at the same time or level. Through the assessment the learners’ achievement on this road to success can be measured against the expected outcomes.*

(Questionnaire A)

Hayley responded:

*To vary methods used to assess learners (to give the bigger picture) not just theoretical. To give tools to assess the weaker learners, to credit learners at whatever rate they may have acquired the necessary competence. To encourage lifelong learning.*

(Questionnaire B)

The new assessment policy (Department of Education, 1998: 8) provides two reasons for developing a new assessment policy, firstly, the “requirements of the new curriculum” based on outcomes-based education and the “shortcomings of the current assessment policy *A Resumē of Instructional Programmes in Public Schools, Report 550 (97/06)*” that prescribed a complex set of rules and regulations for subject groupings and combinations, that lacked transparency and accountability, that had

inadequate assessment practices, that made inappropriate use of tests and examinations, and absence of meaningful feedback or support for learners.

In the conceptual framework on ‘deep change’ I suggested in Chapter Three, I differentiated between superficial and deep changes. According to Fullan (1991) and McRel (2000) superficial changes involve changes to the surface features of the change without understanding the rationale for the change, while Fullan (ibid) notes that that deep change involves constructing deep, sophisticated meaning of the change in terms of its purpose. Using this conceptual framework as an analytical tool, I asked what type of understanding each teacher had regarding the purpose of the new assessment policy. Was it superficial or deep? How did it compare with the policy? Why did they have this type of understanding? How would that understanding affect their further understanding of the policy as well as their assessment practices? This analytic stance assisted in the construction of the case study reports for each teacher that I provide in the later chapters, Chapter Five for Dinzi and Chapter Six for Hayley.

I compared data collected from the various sources, a process known as methodological triangulation to construct patterns on their understandings and practices. These patterns became themes that I refined and challenged against data from competing sources. As I subjected the data from the various sources to content analyses, distinct categories were identified.<sup>6</sup> Tentative conclusions began to emerge. I returned to the data “over and over again to see if the constructs, categories, explanations, and interpretations made sense” (Patton, 1980: 339). This process revealed the interaction between me as researcher, the topic and the sense-making process – referred to as “validity-as-reflexive-accounting” (Creswell and Miller, 2000: 125).

I developed a detailed account of how each teacher understood the new assessment policy and practiced assessment in her classroom, that is, a descriptive case study (Merriam, 1988:27), followed by explanations of each teacher’s understandings and practices based on each teacher’s response to the post-observation interviews and the conceptual framework on deep change. These accounts are provided in the chapters on each case study teacher, namely Chapter Five for Dinzi, and Chapter Six for

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<sup>6</sup> These categories were analytical statements yielded from the analysis of the assessment policy

Hayley. I then used the descriptive data to develop conceptual categories, to test the propositions that I proposed prior to data gathering, to develop a typology of assessment practice for each teacher, to explain the assessment practices of the teachers, to suggest relationships between the teachers understanding of the assessment policy and their practice, and to explain the continuity and discontinuities of their assessment practice with the assessment policy.

Using the data from the case report of each teacher I developed within- and cross-case data displays (Miles & Huberman, 1994; Yin, 1994). Each case report facilitated cross-site comparisons and helped identify emerging themes. The cross-case analysis revealed similarities and differences between the two cases. This is synthesized in Chapter Seven.

During the data analysis phase I reminded myself to be cautious about interpreting processes in another culture (school and classroom culture) versus my current bureaucratic culture (policy environment culture) and jumping to conclusions that I think I know what is going on. I rigorously questioned my judgements, feelings, and perceptions without stifling the development of my unique research self, because I recognised the influence of my subjectivity hence I continually clarified and reconsidered my decisions, speculated about alternatives and drew upon the data for insights such that my assumptions were continually being questioned. Continual interrogation of my assumptions was fundamental because as Senge (1992: 243) suggests that one way to further understanding about particular practices is “being aware of our assumptions and holding them up for examination”. This enabled me to adopt a more reflective research disposition.

#### Validity concerns

While the concerns about validity in this research study are infused in the above account, I shall repeat it here as a matter of emphasis. I used the following variety of strategies to ensure that my research study is valid that maximized its quality and credibility.

- A fundamental political concern that I had been confronted with from the beginning of the study was contending with the duality of roles imposed by this study on me – one, an employee within the national Department of Education responsible for formulating policies and the other a researcher exploring policy implementation? Would this lead to negative or positive tensions? How would my employers view my research stance? How would they receive or respond to its findings? Furthermore, and more importantly, my Supervisor for the study was a vociferous and fearless critic of the education system. Would engaging in this study with my chosen Supervisor make my employers question my loyalty to them? I addressed this dynamic tension by firstly recognizing it, and secondly viewed it as an opportunity to develop both a critical thinking and risk taking mentality - essential tools for learning in our dynamic, complex educational transformation process.
- The ethical issues in this research study centred around informed consent which I addressed by obtaining informed consent from each of the two schools and teachers as discussed previously in this chapter; around confidentiality and anonymity which I addressed by promising confidentiality and providing pseudonyms for the schools and teachers; around the unequal relationship between myself as the researcher and the teachers as research participants in terms of who benefits from the research study, which I addressed by acknowledging that as a doctoral student I was to benefit not only in advancing academically but also advancing the frontiers of knowledge. In addition I did not adopt a hierarchical position of expert in relation to my research participants, but rather that of a learner, which I made explicitly clear to each school and teacher. There was also the issue around the duality of my roles while in the schools, a role as a political bureaucrat and that of a researcher. I decided at the beginning of the research study that I would remove my bureaucratic hat in the research settings and use a researcher hat. This proved to be very challenging as I was often tempted to inform the participating teachers and schools of recent and relevant educational documents and discussions that I had been privy to as a bureaucrat. But I had to exercise extreme caution and restraint – a difficult task for a ‘born teacher’ that I believe I am.

- I returned to the data “over and over again to see if the constructs, categories, explanations, and interpretations make sense” (Patton, 1980: 339). This process revealed the interaction between the researcher, the topic and the sense-making process and is referred to as “validity-as-reflexive-accounting” (Creswell and Miller, 2000: 125).
- The raw data and its interpretations were taken to the teachers concerned for their verification, to check how accurately I have represented their realities and to assess whether my interpretations accurately represent what they said and did (Creswell and Miller, 2000). I incorporated the teachers’ comments into the draft case study report that they would have reviewed. By giving the teachers a chance to react to the data and to the final account ensures that the participants add credibility to the qualitative study (ibid). This ensured construct validity (Yin, 1994).
- I gave the final draft case study report to a critical friend and colleague who would be an external reviewer to help establish construct validity (Creswell and Miller, 2000).
- By using multiple sources of evidence from questionnaires, free-writing schedules, interviews, classroom observations, records and documents, that is, a process of triangulation, construct validity was established. I searched for convergence among the multiple and different sources of information to form themes and categories.

#### Limitations of the Research Study

Because I, as researcher am the primary instrument for the collection and analysis of data in this case study, researcher bias could be introduced in the research study. This is related to issues such as ethics, reliability, lack of rigor and validity concerns. This had been dealt with by following a variety of strategies that ensured credibility to my research study as discussed above for validity concerns.

This study cannot be used to make broad generalizations because it is a case study and as such provide little basis for making scientific generalisations. However by making the purpose of the research study explicit, namely, the use of a specific policy, the new assessment policy could be used as a window to explore and understand the relationship between policy and practice in a particular context of investigation. The study may be “generalizable to theoretical propositions” (Yin, 1994: 10) but not to all policies, and not to all teachers and all schools.

The policy itself is being taken as given, that is, it is not being conceptually critiqued, but the policy intention in terms of its implementation is being investigated. It may seem that policy implementation is seen as being separate from the policy process. I embrace an integrated view of policy, meaning that I view policy implementation as inextricably linked to the policy making process. I also recognize that many other conditions are required to effect change, for example, vision, enthusiasm, commitment, resources, material, financial and human, not only policy interpretation and implementation.

This case study research resulted in voluminous amount of data that needed to be managed and secured properly. Slippage can be costly in terms of continuity essential for coherence of the study. For each set of data, I created a logical case study database that was easily retrieved. Manual and electronic copies of the case study database were made and stored in various places for safe keeping.

Being a researcher and educator, possible tensions arose when working in schools. I made my position very clear when seeking permission to conduct the research in the schools willing to participate. I implored the teachers and the schools to see me as a colleague seeking their assistance in learning to understand educational change in a complex, evolving and challenging political, cultural, economic and social landscape. Confidentiality and anonymity was promised and honoured.

Another limitation is conducting research in transitional context such as South Africa that is undergoing substantial changes politically, economically, socially and culturally. In such contexts Valero and Vithal (1998:9) suggest that “disruptions to carefully conceived plans may take on more dramatic alterations”. For example:

- Researchers may be unable to gain access to the schools within which research was intended. This may be due to class boycotts, student or teacher strikes, unscheduled closing of schools due to social or political problems. The school context is merely a microcosm of wider social changes, and therefore, a variety of macro- and micro- level factors come to be played out within the school context. As educational researchers, the clearly laid out plans of data collection are often unable to be carried out.
- Researching the subjective interpretations of research subjects may alter significantly in relation to time, place and context during the data collection process.
- The research subjects within the context of a rapidly changing society are also characterised by a kind of evolutionary (if not radical) transformation of their own personalities, ideologies, and beliefs. The evolutionary status of such change entails that data collected from subjects about their beliefs, ideologies, attitudes, etc. are potentially subject to a range of fluctuations. These fluctuations do not (as to be expected) progress in neat trajectories.

I will only make modest claims about change based on the initial set of observations emanating from this research study.

This research methodology guided my entry into each school to collect the data from each teacher to construct the case study report for each teacher. I construct these case reports in the following two chapters.

#### **Summary of Chapter Four**

This chapter describes the qualitative case study method used to respond to the three research questions explored in the study. I make three propositions to be tested by the study. The chapter describes the research design and the various methods and tools used to collect data from the two teachers, each teaching Grade 8 Natural Science, but from two different contexts. I highlight the disruptions to the data collection process as well as my response to these disruptions. In this chapter I explain how validity was

established. Limitations of the study are identified and responses to the shortcomings were provided.

In the next chapter I develop a case study report of Dinzi.

## CHAPTER FIVE

### The Case of Dinzi: In Search of New Knowledge and Resources

*I am not conversant about the basics.  
I cannot really get deep into it?  
I don't have deep knowledge about it as such<sup>1</sup>*

In this chapter I describe Dinzi's understandings and beliefs about the new assessment policy as well as her assessment practice in her classroom. I used the methodological plan described in the previous chapter to proceed into the school to collect data from this teacher. I drew on this data to construct the comprehensive case study report of Dinzi. The chapter will be both descriptive and analytical in nature. I first provide a detailed descriptive profile of Dinzi, the school where she teaches, and of the observed Grade 8 Natural Science class, followed by a discussion of her understanding of assessment policy. This is followed by a discussion of her observed assessment practice. I shall provide the analytical response to the reasons informing her assessment practice in Chapter Eight of this dissertation. In developing the case report of Dinzi, I draw on evidence from the various data points elaborated and discussed in Chapter Four.

The following summarised framework, coupled with the respective research instruments adducted as evidence, guided me in developing the case study report on Teacher Dinzi:

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<sup>1</sup> Quotation from this teacher during an interview (July 2002)

- Profile of Teacher Dinzi
- Profile of school inhabited by Dinzi
- Profile of observed class – Grade 8 Natural Science class
- Dinzi’s understandings and beliefs with regard to the assessment policy using evidence from the following primary data points:
  - Questionnaire (A1)
  - Free writing schedule (A2)
  - Interviews prior to classroom observations (A3)
- Dinzi’s practice of assessment with evidence emanating from the following primary data sources:
  - Questionnaire (A1)
  - Interviews prior to classroom observations (A3)
  - Classroom observations – the fundamental and most critical data source (A4)
  - Teacher Documents (A5)
  - Teacher records (A6)
  - Student<sup>2</sup> Notebooks (A7)
  - Student Records (A8)
  - June and November examinations (A9)
  - Interviews after observations (A10)

### Profile of Teacher Dinzi

I built the profile of Dinzi based on information obtained during formal interviews, informal conversations, as well as from the bio data questionnaire, which the teacher completed. This profile is essential to the focus of this study because personal and professional traits are inextricably linked to what people say and do. In other words it would provide a personal context to compliment and enrich the insights from the study.

Dinzi is a level one educator<sup>3</sup>, and is forty years old. Her first language is Xhosa while English is her second language. Her knowledge of Afrikaans is very limited. Her

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<sup>2</sup> In the South African context the term ‘learner’ is used to refer to students and pupils. I will use the terms ‘student/s’ and ‘learners’ interchangeably in this study for practical reasons.

qualifications indicate that she is formally qualified as a teacher, that is she obtained a Junior Secondary Teacher's Diploma Certificate specialising in Science and Mathematics from the Cicira Training College of the then Transkei<sup>4</sup> in 1977. This Certificate qualifies her to teach Natural Science, Biology and Mathematics. She also has a Bachelor of Arts Degree with Psychology and Sociology majors obtained from the University of Fort Hare in 1985. She is currently in her second year of study towards a Further Certificate in Outcomes Based Education (OBE)<sup>5</sup> offered by a tertiary institution in the province and funded by the provincial Department of Education. Dinzi and two other teachers from her school had been nominated by the school principal to study towards this Further Certificate in OBE (personal communication with the head of department of science in the school).

Her teaching experience spans fifteen years, all in this same school called Delamani High School<sup>6</sup>. She has taught mathematics to Grades 8 and 9 for fourteen years. She has never taught Biology during her teaching career, and this is her first year of teaching Grade 8 Natural Science, of which she teaches one of the four classes. She reported that she taught this particular class, that is Grade 8 Natural Science, the focus of this study, in the first term, but a temporary teacher taught this class in the second term. Temporary teachers seemed to have been employed by the provincial Department of Education to relieve the heavy workload of staff at this school. However in the third term the provincial Department of Education did not renew the contracts of the temporary teachers. This resulted in the reorganisation of the school timetable, and Dinzi resumed teaching this Grade 8 Natural Science class in the third term. She also teaches mathematics to three Grade 9 classes and English to two classes, one Grade 10 class and one Grade 9 class. She reported that she was not qualified to teach English but was forced to because the school was short staffed (personal communication). She is the class teacher of Grade 10 A. Of the 40 period-week, Dinzi teaches 30 periods, which means that she has 10 non-teaching periods per

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<sup>3</sup> In terms of the Employment of Educators Act of 1995 school-based educators are categorised in one of five levels, ranging from level 1 to level 5. Level 1 is the starting category, level 2 being Heads of Department, Level 3 Deputy Principals, and levels 4 or 5 occupied by Principals depending on the student numbers.

<sup>4</sup> Transkei was one of the Homelands for Blacks created by the apartheid government of South Africa.

<sup>5</sup> The approach to education and training underpinning education transformation chosen by the post-apartheid government of South Africa

<sup>6</sup> Not real name but pseudonym for the sake of anonymity and confidentiality

week. All her lessons are conducted in a classroom allocated to her, and students move to her classroom for lessons.

With regard to Curriculum 2005<sup>7</sup> and OBE she “received training in mathematics, general OBE and for Grade 9 only but not for Grade 8, Natural Science and assessment” (personal communication).

She is a member of South African Democratic Teachers Union. Her extra-curricular duties involve memberships of the Sports Committee, School Development Team, Library Committee, School Governing Body, School Uniform Committee and School Assessment Team.

#### Profile of Delamani High School

Delamani High School is situated approximately fifteen kilometres from the city centre. It is regarded as a ‘township’<sup>8</sup> school that had been established twenty seven years ago. It is supported by one of the twelve districts<sup>9</sup>.

The management team of the school includes the principal who is male, two deputy principals, one female and one male, and five heads of department for the different learning areas/subjects. There is a head of department for science who is female. Both the principal and the science head of department have been in the school for fifteen years. There are thirty-two members of staff whose racial composition is mainly homogenous in terms of race, that is, all are Black African but one exception, one Indian male who is a head of department. There are more female teachers than there are males. Most of the teachers in the school are studying OBE courses with UNISA<sup>10</sup> sponsored by the provincial department of education (personal communication with the science head of department, July 2002). The science head of department had been

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<sup>7</sup> The new flagship curriculum introduced in 1997 by the post-apartheid government of South African

<sup>8</sup> The apartheid government of South Africa had created specific and separate areas for the different groups of people based on race. Africans, Indians and Coloureds were each housed in group areas known as ‘townships’.

<sup>9</sup> In South Africa the system of governance in education consists of 4 or 5 levels, namely, starting from the top: national (one) – provincial (nine) – regional (not in all provinces and where it is present the numbers vary) - districts (numbers vary in the different provinces) – schools (numbers vary in each province)

<sup>10</sup> University of South Africa

away from the school for about three weeks, the last week at the end of the second term and the first week of the third term, attending a Teacher Enhancement Programme in the USA sponsored by a university in the province (ibid). She reported that she “did not know what happened while she was away ...my classes were left unattended” (ibid).

The non-teaching support staff includes two clerks, one caretaker, one gardener, one cleaner and one night watchman. The school has a School Governing Body that “is trying hard but more effort is needed” (personal communication with the teacher). Most parents belong to the working classes and are uneducated therefore their input in terms of decision-making at the school is minimal (ibid).

There are one thousand and seventy three (1073) students in this school, ranging from Grade 8 to Grade 12. This means that there are two educational systems operating at this school, one, the new the General Education and Training Band<sup>11</sup> made of Grade 8 and 9 students, and the old Senior Secondary Phase made of Grades 10 to 12 students. All the students are Black African<sup>12</sup>. Many of the students come from the surrounding informal settlement characterised by socio-economic deprivation. Many live alone because their parents/mothers/fathers live and/or work in the rural or farm areas and these students attend this school especially because it accommodates students who speak Venda<sup>13</sup>. This is the only school in the township that accept Venda speaking students because of anti-discriminatory practice of the school (personal communication with the principal and teacher). The first language of most students in this school is Venda, followed by Tsonga, and Northern Sotho. Their language proficiency in English is very limited and in Afrikaans it is negligible. Each student is expected to pay one hundred rand (R100) per year towards school fees. However,

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<sup>11</sup> The new South African System of Education since 1994 is made up of three bands, namely, General Education and Training (GET) consisting of Grades 1 to 9 that is compulsory; the Further Education and Training Band (FET) consisting of Grades 10 to 12 offered in schools and in technical colleges, and the Higher Education Band (HET) consisting of post Grade 12 students in Universities and Technikons. At the time of writing the new FET Curriculum is scheduled to be implemented in Grade 10 classes in 2006, in Grade 11 classes in 2007 and in Grade 12 classes in 2008. This means currently Grades 10 to 12 follow the old curriculum, known as NATED 550 for short.

<sup>12</sup> In terms of the post apartheid classification system, people are either Black or White; Blacks include Africans, Indians and Coloureds.

<sup>13</sup> Venda is one of the African languages spoken in South Africa

many are exempted from payment because of poverty. There is a School Representative Council made up of representatives from each class.

The road leading to the school is tarred. The building is single storey, made of brick and tile, consists of six blocks with twenty five classrooms, one small, disorganised, and sparsely resourced laboratory that “needs to be made attractive” (personal communication with Dinzi), a small, poorly-resourced library, a small hall that is partitioned to serve as classrooms, one of which houses the home economics class, and a woodwork centre. When needs arise for the use of the hall, for example, to hold parents’ meeting, the partitions in the hall are removed for such occasions but even then it becomes overcrowded because of its small size (ibid). The small administrative block houses an office for the principal, two offices for each of the two deputy principals, an office for one head of department (the other four have no offices but use the staff room), and two offices for the administrative staff. The office spaces are reported to be inadequate (personal communication with the principal). In fact the principal’s office is very small and houses the single computer, the school’s prized possession. It also houses the single staffroom, which is not only extremely small to accommodate the thirty two staff members, but also lacks sufficient table and chairs, shelves and cupboards. The windows in the staff room have burglar bars, but lack curtains, and some window panes are broken, which allow dust to enter making the staff room very dusty. The sizes of the classrooms are also very small to accommodate the large number of students in the school.

The building is wired and supplied with electricity, but the classrooms lack electricity and plug points. The building is completely fenced with a gate at the entrance that is locked. Security seems to be a priority because of vandalism that is prevalent in the area. The gravel entrance into the school building gives it an untidy image, but the garden is receiving attention. The surrounding ground is un-tarred and un-grassed therefore dust spreads throughout the building. The verandas are extremely narrow forcing students to walk on the dusty path to their next classrooms. When it rains students have limited shelter to move from one classroom to another. The number of taps and toilets for students are insufficient. Litter is one of the major problems in the school because of insufficient bins and waste being collected once a week. However students are expected to clean up every afternoon. There is no parking facilities

present forcing cars to be parked in any suitable space available. The building needs painting and minor repairs. Since the school lacks a tuck shop, vendors are allowed into the school to sell their wares such as chips, sweets and cool drinks.

Dinzi believes that the school is “not conducive to teaching and learning” partly because of the nature of the school building described above, and because of lack of teaching and learning resources such as text books, photocopying paper, chalk and dusters (personal communication).

Two school timetables are in operation - one from Mondays to Thursdays and another for Fridays. From Mondays to Thursdays the school starts at 07:45 with assembly and followed by registration – both assembly and registration lasting fifteen minutes. This is followed by the first period starting at 08:00 and lasting forty minutes. There are seven periods each lasting forty minutes. The periods are interrupted by two breaks, the first one at 10:00 lasting fifteen minutes, following two periods, and the second one at 12:15 lasting thirty minutes, following three periods. There are two periods after lunch before the school day ends at 14:05.

On Fridays the school starts at 7:45 with assembly and registration lasting fifteen minutes as for Mondays to Thursdays. However each period lasts thirty five minutes with one break lasting thirty five minutes, with the school day ending at 13:00. The reason for the timetable being different on Fridays was not clear. The principal informed me that he continued the practice as he found it when he had arrived at the school but requested that I enquire from the teachers (personal communication). One teacher repeated the principal’s view, while another reported that it was to accommodate the Muslim students and teachers who had to attend mosque on Friday afternoons (personal communication with teachers). I learnt that there were no Muslim teachers in the school and a negligible number of Muslim students (personal communication). On the other hand, Dinzi reported that “most students run away on Friday afternoons and don’t come back after lunch” (personal communication).

Teachers are expected to report to school at 7:30 and leave at 15:00 depending on the duty roster. Teachers are expected to supervise students after school hours, mainly in the afternoons depending on a planned supervision timetable that ensures every

teacher has a turn on a rotational basis. Supervision in the afternoons ends at 17:00. The supervision after school hours is a response to the poor student performance in the school as well as to provide those students from poor homes with opportunities and conditions to learn with additional support from the teachers on duty. Dinzi reported that this after school supervision was a strain on her but the students, especially those in Grade 12 were benefiting.

### **Profile of the observed Grade 8 Natural Science class**

According to the formal records of the school there are fifty students registered in this Grade 8 Natural Science class (class register from class teacher). However, this number was not present at any of the seventeen observed lessons when the numbers fluctuated from a minimum of twenty-eight to a maximum of forty one. All students are Black African. There is an almost equal distribution of male and female students. Most come from the surrounding informal settlement characterised by socio-economic deprivation. Many live alone because their parents/mothers/fathers live and/or work in the rural or farm areas and these students attend this school because their parents chose that they be schooled in an urban area. The first language of most students is Venda, others being Tsonga, and Northern Sotho. Their proficiency in English is very limited, while in Afrikaans it is negligible.

I did not see any student with a science textbook during my seventeen classroom observations. Many did not have class/notebooks (notebooks in future) in class. In fact during one observation lesson (A4, 20 August 2002) not one of the thirty-five students had a notebook in class. Many lacked pens or/and pencils. In the rare occasion when they were requested to write, some wrote on bits of scrap paper, while many would not write at all (A4). Dinzi reported that these students “could talk but not write because of English language” (A3). Their educational engagement in the observed lessons had been minimal (ibid).

During the classroom observations I had observed a worrying lack of discipline amongst the students with some walking into and out of the class as they chose, or coming in late, screaming across the classroom and talking during lesson time, eating during lesson time and throwing their litter on the classroom floor. Their attitude and

value to learning, schooling and the environment are open to question. Dinzi reported “they are like that” (personal communication). The question is why they are allowed to get away with this kind of behaviour by the teacher and the school. Why is she not more assertive in demanding and calling them to order?

A specific classroom has been assigned to Dinzi to conduct her lessons. It is in a separate block away from the administration block. The walls are bare of any pictures and wall charts, and in urgent need of painting. The desks and chairs occupy the entire classroom leaving no space for a table and chair for Dinzi. There is a wall cupboard in the corner of the class but not used by Dinzi as it does not have a lock therefore susceptible to burglary. Desks and chairs are arranged in groups and in rows depending on the preferences of the students. It is conspicuous by the absence of chalk, dusters and any other teaching and learning resources. The windows have no burglar-guards; some have broken windowpanes, and are painted half way. The door has no lock and is left open. This allows dust from the un-tarred and un-grassed surrounding to enter the classroom making the classroom very dusty. The general appearance and ambiance of the classroom is unwelcoming and educationally unappealing if not bankrupt. This raises the question why Dinzi and her students do not take care and pride in making the classroom educationally attractive.

During the seventeen observed lessons, the classroom had been characterised by a disturbing and unhealthy appearance – it was always filthy with empty chips packets, lunch wrapping, sweet wrappings, empty cool drink cans and other litter. There was no bin in the classroom. Even the area surrounding the classroom was more often than not littered. This begs the question about why this situation is tolerated by the teacher and students, and by the school generally.

This contextual background informs this study about the conditions in which Dinzi works. I now move from context to content - the main thrust that frames the study, namely, Dinzi’s understanding and beliefs of the new assessment policy, how she practices assessment within this context and why she practises in ways observed.

**Dinzi's Understanding and Beliefs with Regard to the Assessment Policy**

In this section I describe and analyse Dinzi's understanding and beliefs with regard to the new assessment policy, in response to the first research question. However I disturb the description and analyses with questions that are meant to establish an agenda for the explanatory section in Chapter Eight of this dissertation.

Dinzi indicated that not only was she aware of the new assessment policy but that she also had a copy of it (personal communication). The policy was given to her at a staff meeting but it had not been discussed properly (ibid). She believed that the policy was easy to understand, and that it provided clear guidelines for implementation (A1).

Her responses to the questionnaire (A1) indicated that she strongly agreed that the policy must be viewed in relation to our larger agenda of reconstruction and development; the policy provides the pedagogical basis for our new education and training system; the policy serves as a vital instrument to shape her educational practice; the purpose of assessment should always be made clear to students; assessment should be an integral, ongoing part of the learning process; students who do not meet the criteria must receive clear explanations with an indication of areas that need further attention; focusing on formal tests as the sole method of assessment should be avoided; the policy creates opportunity for feedback to the school, and other stakeholders about the schools performance; the policy provides a clear indication about how well every outcome in the learning programmes are being taught and learned; the policy informs and improves the assessment practices of educators; and the policy makes recording of assessment data cumbersome.

She also agreed (ibid) that the policy: creates opportunity for feedback to students to improve learning; the criterion-referenced approach should be used; creates opportunity for teachers to improve teaching and learning; enables assessment results to be communicated clearly, accurately, timeously and meaningfully; makes it possible for results to be reported both informally and formally; enables the reporting process to be used as a focal point of dialogue between the home and the school; allows for the assessment of knowledge, skills, values and attitudes; will enable teachers to use assessment information to assist students' development and improve

the process of teaching and learning; makes it possible to credit students' achievement at every level, whatever pathway they may have followed, and at whatever rate they may have acquired the necessary competence; requires the use of tools that appropriately assess student achievement and encourages lifelong learning skills; allows the internal assessment process to be moderated externally in accordance with specific provincial guidelines; the specific outcomes, which are grounded in the critical outcomes, will serve as the basis for assessment; and the various specific outcomes and their assessment criteria must be available to students.

Most of her responses to the questionnaire seemed to indicate that Dinzi's classroom assessment practice was aligned with the requirements of the new assessment policy (Chapter One and Department of Education, 1998). I would argue that these responses possibly indicate her awareness of the information about the policy but not necessarily her understanding, more specifically a deep understanding of the policy; this deep understanding can only be obtained by further probing that I did during the seven interviews<sup>14</sup>.

Her understanding with respect to the rationale behind the introduction of a new assessment policy was:

*[In] the perception that all students can learn and succeed although not necessarily at the same time or level. Through assessment the students' achievement on this road to success can be measured against the expected outcomes. It therefore sees to it that students are given equal opportunities to succeed by implementing different methods of assessment in order to accommodate all the levels of abilities of students.*

(A1)

She added:

*The educators had their own way of assessing governed by the individual and the school where he/she teaches.*

(A2)

*[But] partly because of the way in which the student used to be assessed, the old system in which the students had to stick to time, given a question paper. Then after the question paper*

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<sup>14</sup> Each interview lasted between one and two hours depending on Dinzi's availability.

*went in, an hour or two hours later, and then the assessment was not done continuously, or not daily. To some extent it is of advantage to most students especially if they do their work. Maybe to change the approach of the educators towards assessing, to do it maybe fairly. To exchange the approach of the educators towards assessment, they thought it was unfair. It was unfair in the sense that you would find from experience, that because the student did something naughty because he did not understand, and the teacher would say. "Tomorrow I am going to give you a test", then some students were not prepared for the test, and the students were not told what to expect for the test, whereas now if you give them any work, any test, you have got to tell them what you are expecting from them. And to give the students equal chances of moving to the next grade.*

(A3)

Her responses to each of the three different instruments are varied but synthesised analyses suggest that Dinzi has a general and superficial understanding of the rationale underpinning the new assessment system. It seems weakly connected to that provided in the assessment policy that clearly articulates the rationale, namely, “both the shortcomings of the current assessment policy, and the requirements of the new curriculum for grades R-9 and Adult Basic Education and Training, have made it necessary to develop a new assessment policy” (Department of Education, 1998:8, emphasis added). In fact the policy provides a lengthy criticism of the old/current<sup>15</sup> assessment policy known as *A Résumé of Instructional Programmes in Public Schools, Report 550 (97/06)*; commonly referred to as NATED 550), namely, that it prescribes a complex set of rules and regulations for subject groupings and combinations, it lacks transparency and accountability, it embraces inadequate assessment practices, it encourages inappropriate use of tests and examinations contributing to high failure and drop-out rates among students, it allows for absence of meaningful feedback, and it allows for absence of support for students (ibid).

By comparing her response to the assessment policy and to the analytical conceptual framework I would argue that she has a surface or superficial understanding of the rationale underpinning the introduction of the new policy since she mentioned “measured against the expected outcomes” which indicate that she has an idea that

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<sup>15</sup> This particular policy is old compared to this new one of 1998 for GET Band (focus of this study), but it is current because it is being used in Grades 10 to 12 until the phasing in of the new FET curriculum in 2006 for Grade 10. Dinzi has to teach under both policies simultaneously.

outcomes were driving the new assessment policy, although this was at a general superficial level. However, she did not mention the shortcomings of the of the old/current assessment policy, which is detailed in the new policy on assessment. This raises two issues. Firstly, why does she have only a superficial understanding and how did she come to this understanding? Secondly, how will this surface understanding affect or influence her understandings and beliefs of the policy as well as on her assessment practice? What implications does her surface understanding have for policy change and educational change generally?

Her general understanding of the new assessment policy is that:

*It's a standardised method of assessing in both FET and Grd R-9. The government made it to be uniform nationally.*

(A2)

*I understood it as the new way that was introduced by the National Department of Education; what should be done, what are the procedures to be taken, what forms of assessment the people have used. What tools and techniques and what methods should they be used, and then how much involved should a student be in the assessment.*

(A3)

However she added:

*I am not conversant about the basics. I cannot really get deep into it? I don't have deep knowledge about it as such.*

(A3)

She admits that she lacks a deep understanding of the policy. Why? The analysis of her responses lead to the following questions: Why does she have a wrong understanding that this policy is for the “FET” band as well when it is only for one band, the GET band? What is meant by ‘standardised method of assessment’? Why is her response focused on ‘what’ is to be done with a conspicuous absence on ‘why’ and ‘how’ issues regarding assessment? How will this lack of a deep understanding of the new policy affect her assessment practice? What are its implications for educational change and policy change specifically? How could she develop a basic and a deep understanding of the new policy? She also added that she did not feel confident and empowered with regard to the new assessment policy (ibid). How

would this lack of confidence and empowerment affect her commitment and ability to understand and implement the assessment policy? These responses are inconsistent with her responses to the questionnaire where she reported that the new assessment policy was easy to understand, it provided clear guidelines for implementation and that it allowed for flexible implementation (Questionnaire A1). Why are there inconsistencies in her responses? What are the consequences of these inconsistencies to her understanding and implementing the new policies? However the analysis reveals that she is aware that assessment involves many “forms”, “tools”, “methods” and learner involvement (see A3).

With reference to the meaning of ‘critical outcomes’ she reported:

*I am not very sure about it, I must be honest.*

(A3)

She did not even want to try to provide what she believed it meant (ibid). Not only is this definition provided in the assessment policy but it also indicated “the specific outcomes grounded in the critical outcomes will serve as a basis of assessment” (Department of Education, 1998: 11, emphasis added). The new education system is based on the outcomes-based approach to education and yet she does not have any understanding of this fundamental concept! This begs the question why? What are the implications of this lack of understanding on her assessment practice?

Dinzi understands ‘specific outcomes’ as:

*What is expected of students to know at the end of each lesson... the assessment is guided by this specific outcomes.*

(A3)

This was partially consistent with the new assessment policy. She missed the “and do”. She added however that she did not have a good understanding of the specific outcomes in Natural Science *because now you find that certain specific outcomes are not commonly used although they are there* (ibid). Her response reveals a superficial understanding of this concept. The issue is why she lacks the deep conceptual understanding of a defining feature of the new curriculum and assessment system and how will it influence her assessment practice?

She reported that she was *not very sure* about the relationship between the new national curriculum policy and the new assessment policy, and *not conversant with*

the new national curriculum policy (Interview A3). This means that she has no understanding of this relationship. Again we need to ask why. Dinzi is currently teaching Grade 8 Natural Science (focus of this study) and Grade 9 Mathematics, both of which are supposed to be informed by new national curriculum policy and the new assessment policy. Why was she in this state of ‘policy ignorance or illiteracy’ if you like, despite the new assessment policy clearly articulating that “this new assessment policy for the General Education and Training Band, alongside the new national curriculum framework, provides the pedagogic basis for our new education and training system” (Department of Education, 1998: 7, emphasis added). It added, “The learning programmes for each phase will serve as a basis for assessment in each of the phase” (p14). How will this limited if not lack of this basic understanding impact on her understanding of the policy and its implementation? What does it imply about the strategy in bringing about changes in teachers? Who will address Dinzi’s predicament, when and how?

Her understanding of the main goal of the policy is:

*[To] make it possible for the student to meet same standards in the same grade though they may be in different schools. It then accommodates students even if they need transfer from one school to another, if properly administered the student will fit in any school; it is to make the students to be independent, accountable and responsible citizens.*

(A2)

She added:

*[To] try and make things easier for the students and the educators, so that the students themselves should be able to fit in the outside world and even give the students equal chances of moving to the next grade.*

(A3)

But this response is different to the new assessment policy that states that the aims of the policy are to “enhance the provision of education which is continuous, coherent and progressive, for each student, serve as a key element in the quality assurance system, and introduce a shift from a system that is dominated by public examinations which are high stakes, and whose main function has been to rank, grade, select and certificate students, to a new system that informs and improves the curriculum and assessment practices of educators” (Department of Education, 1998: 9-10).

It is clear that she has a different and superficial understanding of the goals of the new assessment policy. This raises the questions as to why Dinzi exhibits a surface rather than deep understandings of the assessment policy. Would this affect her understanding of the policy on the whole? How will her understanding affect her assessment practice? What implications will this have on understanding policy change and on developing strategies for professional development for teachers in the context of policy change?

She did not respond to the question on her understanding about ‘criterion-referenced approach’ to assessment in the free writing schedule (A2). Does it imply that she did not know what it meant? However in the interview she reported that it:

*[Means] a certain criteria you set when you assess the students. But now the problem with it is that the criteria will differ from one educator to another because it depends now on what you expect from the students. Our criteria will never be the same.*

(A3)

She added that she uses it:

*To explain to them (students) how we are going to allocate marks. Part one if you give me this I will give you three marks, if the information is not all what I wanted then you have two marks, if there is nothing at all you get nought.*

(A3)

Her understanding of ‘criterion-referenced approach’ to assessment is different compared to the assessment policy that defines ‘criterion-referencing’ as “the practice of assessing a students’ performance against an agreed set of criteria. In the case of OBE the student is assessed against agreed criteria derived from the specific outcomes” (Department of Education, 1998:19; emphasis added). This raises many questions: Why is her understanding so shallow? How will her shallow understanding/non-understanding of the concept ‘criterion-referenced assessment’ affect her understanding of the new assessment policy on the whole and on her assessment practice? What are its implications for the successful implementation of the assessment policy and for policy change more generally?

Dinzi also has a limited understanding of a related concept, ‘assessment criteria’ that she understands as:

*What do you use to assess the students? Are you going to use question and answers or are you going to the groups themselves to assess themselves. ... I'm not sure I'm using it correctly.*

(A3)

This understanding is not linked to the meaning provided in the assessment policy, namely, “evidence that the student has achieved the specific outcomes. The criteria indicate in broad terms, the observable processes and products of learning which serve as evidence of the students’ achievement” (Department of Education, 1998: 19; emphasis added). The policy adds that the specific outcomes and their assessment criteria must be made available to students to inform them what is to be assessed, and that students who do not meet the criteria must receive clear explanations with clear explanations with indications of areas that need further work and must be assisted to reach the required criteria (Department of Education, 1998: 11; emphasis added). Furthermore the agreed upon assessment criteria are explicit in the national curriculum policy (see Department of Education 1997; emphasis added). However she added:

*We're still struggling to get to grips with it. Meaning to be able to know exactly what the terms mean, and how do you achieve those assessment criteria. Although they're listed they don't have application. ...I don't use it because they confuse me.*

(A3)

She admits that she has a surface or limited and confused understanding of the concept and therefore she does not use it. This confusion poses serious questions relating to the successful implementation of the new assessment policy. The questions are: Why does she have this confused understanding? Who will help Dinzi address her confusion, how and when? How will students be affected?

Her understanding of continuous assessment is:

*When students are assessed almost daily and this counts towards their CASS.<sup>16</sup>*

(A2)

*We have been using continuous assessment before the policy came with its new terminology called continuous assessment.*

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<sup>16</sup> Continuous Assessment, the model of assessment underpinning the new assessment system of education in South Africa

*We used class tests say fortnightly, you would give students class work and homework and record them towards the students year mark. Continuous assessment does not have a fixed time but can be done randomly.*

(A3)

This response reveals a superficial understanding as well as some erroneous understandings compared to the assessment policy. The new policy does not state that students should be assessed “almost daily” nor “randomly” but rather on an ongoing basis (Department of Education, 1998: 19). Furthermore, the year mark system that characterised the old assessment system is philosophically, conceptually and theoretically different from the continuous assessment model. It appears from the response as if regular “tests” constitute the marks despite the policy making it explicit that the continuous assessment model should “not be used as a series of traditional test results” (Department of Education, 1998: 9, emphasis added). It also seems as if ‘recording’ of marks receives primacy rather than using the information to improve teaching and learning suggested by the continuous assessment model (ibid). Her responses raise questions relating to the source of her superficial and erroneous understanding of continuous assessment, the model underpinning the outcomes-based assessment system. What informs her understanding of the continuous assessment model? If she believes that continuous assessment is not new but equivalent to the year mark system of the past, how does this understanding influence her assessment practice?

She also believes:

*Now they have made everything a bit more complicated.*

(A3)

Why does she feel this way? How will this feeling affect her assessment practice and her students? Who will assist her in clarifying these issues and how?

She believes the continuous assessment marks should not be moderated externally because:

*The rate at which students understand differs and so it may delay or accelerate the rate of the students.*

(A3)

This seems inconsistent with the policy requirement that “moderation will be carried out to ensure that appropriate standards are maintained in the assessment process” (Department of Education, 1998: 10) and that “the internal assessment process should be moderated externally, for example, by professional support services” (p11). Why does she believe that continuous assessment marks should not be moderated externally? How would this affect the successful implementation of assessment processes generally and specifically the continuous assessment model? If the continuous assessment marks of students are not moderated internally and/or externally, would students be affected and how? Is continuous assessment being monitored, by who and how?

Some of the principles underlying the new assessment policy are that assessment should be authentic, valid, and sensitive to gender, race, and cultural background (Department of Education, 1998: 10). Her understanding of ‘authentic’ assessment was”

*To use a memorandum from what you expect from students so that the students are able to say I’m right here or you marked me wrong and so on. It can be more than that, I’m not sure.*

(A3)

Dinzi acknowledges that she is not sure about the meaning of authentic assessment. Why was she not sure? How will her not being sure impact on her assessment practice?

Her understanding of a ‘valid’ assessment is:

*When the type of assessment you share with other educators and agree on it.*

(A3)

This shows her superficial understanding of the principle. Why and how did she arrive at her understanding? What are its implications for her assessment practice?

She was not able to explain her understanding with respect to assessment being sensitive to gender, race and culture. Why was this so? If this non-explanation is interpreted as her not knowing what this meant then it may have serious implications

for the successful implementation of the policy. What impact will this have on assessment practice? How will this affect the educational change strategy?

She described student 'portfolio' as:

*It is some class work, homework, some projects and so on and you put it in the file. It's a collection of student's work.*

(A3)

She believes that the reason for having portfolios is

*So that now students can be able to take his portfolio home and show it to the parents. ... And it helps the child to see whether he's improving in his schoolwork (ibid). She added that she is starting to use it now, just giving it a try, it's not something we're told to do.*

(A3)

Although she believed that it is:

*Positive having a portfolio, it was difficult because some students wouldn't do their work because they couldn't find relevant resources to do the work and also the laziness of the students. Well another reason is that because of the numbers of students that we have, it becomes an enormous task to assess their work. It is something new and we don't know what to expect there...it is frustrating and it de-motivates me for teaching.*

(A3)

She continued that she was not using portfolios for the Grade 8 Natural Science Class but only for Grade 9 class. She also added that she keeps the portfolios in her cabinet and only gives them to the students:

*Towards exam time ...after we recorded the marks of the students ...we are guarding against the students losing some of their work.*

(A3)

Dinzi's understanding of what a portfolio is cannot be disputed, but her understanding of the reasons for having a portfolio seems superficial. The fact that she is not using it in her Grade 8 class but only in Grade 9 raises serious concerns for the Grade 8 students. Why does she not use portfolio assessment in her Grade 8 class? Why does she believe that she must be told to use portfolio assessment despite it being

articulated in the assessment policy as one of the techniques to be used by teachers (Department of Education, 1998:12)? In fact the policy expects all educators to have a sound knowledge of each technique, including, portfolios, and to use it in a balanced, fair and transparent way (ibid). Dinzi demonstrates receptivity to the idea of a portfolio but indicates a number of school level constraints that made it difficult for her to implement portfolios. The issue is who will assist and support her address her concerns, how and when? How could her frustrations and negative feelings be addressed, when and by whom? Why is Dinzi seemingly focusing more attention on ‘recording’ marks? What fundamental conditions are necessary for portfolio assessment to be used successfully? By giving the portfolios to students towards the time of the examination not militate against them using it to improve their learning continuously? How should students and teachers manage the portfolios so that some tasks do not get lost? Do teachers have sufficient storage space for the portfolios?

With regard to recording of student assessment results Dinzi reported:

*With the new assessment policy now we've got to keep the record, as long as you assess the students you've got to record it, what used not to happen in the earlier days.*

(A3).

Her understanding of the new recording mechanism seems extremely shallow. She indicates that recording students' assessment results is something new to her, that she did not do this in the past. This will have serious implications for her and the nature of the recording process which the policy demands “should provide a clear indication about how well each and every outcome is being taught and learned, and should include information on the holistic development of the student such as values, attitudes and social development (Department of Education, 1998: 12). How does she record students' achievement? She did not respond to the questions on where she records, what is recorded, how often recorded and any other relevant information that she wanted to share regarding recording in the free writing schedule. This begs the question: Why did she not respond to these questions?

Her understanding around the issue of reporting of assessment results was:

*The report sheets should be well designed so that different tasks can be recorded.*

(A2).

This does not illustrate her understanding of the new reporting process despite it being articulated in the assessment policy: “effective communication about students’ achievement is a prerequisite for the provision of quality education” (Department of Education, 1998: 12-13)? What did she mean by “well designed”? Can she construct a “well designed” report sheet, why and how? She did not respond to the questions on frequency of reporting, contents of the report, how it is communicated, and whether students and parents are encouraged to comment. Why did she not respond to these questions?

The new understandings and beliefs that she acquired as a result of the new assessment policy were:

*At the end of a topic or lesson I as an educator must be able to know whether the student has reached a specific outcome for that “lesson”. If no, I must structure further experiences so that the student can reach the outcome, maybe by using a different type of assessment. If yes, I should structure the learning experiences to reach the same outcome at a higher level or to reach a next level. I then use the above information to help the student. I also use the information to improve my teaching too.*

*The standards have been elevated because you associate assignments with universities; you never thought you can give a Grade 9 child to do a project, to go do an assignment. We’d just give them home work; there was no emphasis to doing these projects and assignments. I would also say that it depended on the type of education that we were trained in. That made a difference, maybe with the other TED<sup>17</sup> schools; they are used to those terms they used to practice assignments and projects, whereas the main Bantu Education<sup>18</sup> had no emphasis put on those things.*

(A1)

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<sup>17</sup> Transvaal Education Department – a system of education for the whites during the apartheid days

<sup>18</sup> Education designed specifically for African Blacks to ensure it was inferior and that it equipped them as inputs into the unskilled labour market.

It seems apparent that she is aware that assessment in OBE focuses on the achievement of clearly defined outcomes as stated in the policy (Department of Education, 1998: 9). She is also aware that she must use different types of assessment and to use the assessment to improve teaching and learning (ibid). But this is inconsistent with her responses to the free writing schedule where she wrote that the new policy does not make much demand on her *except that what we have been doing in the past is given new names now* (A2). She confirmed this during the interview that the past assessment system and the new assessment system:

*[Are] not that different, except that some of the new terminology; because we did interviews, we did question and answer methods, we did formative, they are new names - its just the terminology that is just new.*

(A3)

Why are her responses inconsistent? What does it imply about her understanding of the new policy? If she believes that it is only the terminology that has been changed, how does that shape her understanding and implementation of the new assessment policy? What implication does this have for educational change generally and policy change in particular?

She reported that as a result of the new assessment policy she changed her belief with regard to students:

*I had to change the fact that there are students who are “non achievers or stupid”. Given equal opportunities all students can achieve.*

(A1).

Outcomes-based education is premised on the basis that ‘all students can learn or achieve’ as indicated in both the new national curriculum (Department of Education, 1997) and the new assessment policy (Department of Education, 1998). So in this respect her response is consistent with the policies. Her responses, while appearing consistent with the new assessment policy raise many issues. Firstly, what do equal opportunities mean? Secondly, what assumptions are made about students? Thirdly, is she able to provide equal opportunities and how? Fourthly, do equal opportunities translate to equal outcomes for all students? Fifthly, under what conditions can all students achieve? On probing deeper during the interview she added:

*I won't say it (policy) has changed my role as a teacher.*  
(A3)

This response inserts another dynamic into her understandings, namely her belief changed but her role did not change! The question is why and how does this affect her assessment practice?

She believes that the new policy will benefit the students *if a child does his work properly* (A2). She also believes that it is difficult to assess in different ways as intended by the policy because:

*The students don't go that extra mile to go and find information. Most of them haven't done their work.*  
(A3)

She is implying that the assessment policy would be successful on condition the students do their work, and that is unquestionable. What is questionable is whether students are the only condition? What about the role of the educators? Do educators not form part of the successful policy change equation? What about the role of other factors besides students and educators to bring about successful policy change? How should teachers address the situation when students do not do the work? How do teachers address this situation?

Dinzi believes that the policy was not well planned as revealed by her response to the interview:

*I don't think it was well planned because now I think if they, the government, had planned it they would have considered the expenditure that the schools would get into, because now if we talk about a new policy and then having the OBE and so on, we are using - there is a lot of paperwork and so on, which is not necessary, where you have got to draw worksheets for the student and so on. If the school is a poor school, they cannot have funds to buy paper for the students, and the parents won't have money to buy those materials and the resources that are needed. And as I already mentioned, there are the small classrooms where you have to do the activities, shortage of resources, big number of students that the teachers deal with and shortage of staff.*  
(A3)

Embedded in this response are feelings that imply a certain degree of concern if not negativity. How would this feeling affect not only the implementation of the policy but more importantly her commitment and motivation to change?

She also believes the approach is top-down as illustrated by her response:

*The government introduce the policy whatever it is and then from there they expect teachers to work on the policy, to implement the policy. When problems arise then they call for workshops*

(A3)

Dinzi seems to be articulating a concern regarding the expectations of policy from teachers. How does this feeling affect her commitment and ability to understand and implement the policy? What is the lesson for policy reform and educational change?

She believes that:

*If there is any change of policy that the Department is aware that is going to affect you in two years time, the educators should be trained before, they shouldn't be given crash courses over two weeks and then be asked to implement what we have done in the crash course, it is not possible, because when you are teaching children, you are dealing with the future of people, because at the end it reflects negatively on the educators when they look at the results and find that the children have failed and so on, they forgot that these crash courses are not proper training for the educators.*

(A3)

She also believes that the facilitators of the training do not know their work to train teachers because

*The facilitators they are taken by surprise. It is a top down kind of a thing. The National Education told us you have a class for the weekend, then you get to the teachers, then to the SMTs<sup>19</sup> and the SMTs will get to the educators, They, the facilitators are frustrated. ...We attend workshops even it has not yet worked.*

(A3)

Dinzi felt that the workshop conducted to prepare teachers for the use of student portfolios was not helpful:

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<sup>19</sup> School Management Teams

*Because we were instructed what to do so I wouldn't call it a workshop. They should have just written letters to us to do 1, 2, 3, full stop. It was a waste of time.*

(A3)

These responses seem to reveal negative feelings. What are the implications of these negative feelings on her commitment and ability to understand and implement the policy successfully?

She believes that for better understanding of the policy:

*All educators from management to level one educators need proper and thorough training on assessment.*

(A3)

What does this imply with reference to current training of school staff generally and for assessment in particular? What is 'proper' and 'thorough' training? How should this be achieved and by who and when?

Despite all this, Dinzi seems to be optimistic because she believes:

*We need to be positive. With time, say in 2 years time, if there are no changes again we will make it. If what we are doing this year is going to be the same next year, then we will improve.*

(A3)

What makes her feel positive? Is time the only resource needed for positive change in terms of policy implementation? What is implied by "if there are no changes again"? If changes do occur, what will be the consequence for the successful implementation of the policy? Is it possible to predict that things will remain the same next year, especially in a rapidly changing country like South Africa?

The above description and analysis show that Dinzi has fluid and unstable understandings and beliefs or attitudes with regard to the new assessment policy. Most of her understandings are shallow and superficial, a few non-existent, and much of it lacking consistency with the assessment policy. Most of her beliefs or attitudes are negative but some are positive. How these varied understandings and beliefs inform her practice of assessment in her classroom needs to be explored. I respond to this issue in the next section of the chapter.

### **Dinzi's Assessment Practice in the Classroom**

In this section I shall describe Dinzi's assessment practice in her classroom in response to the second research question, namely, '*In the context of official policy, how do teachers practice assessment in their classrooms?*' I attempt to compare her assessment practice with her understandings and beliefs about the policy, with her claims about her practice and with the policy itself, in search for continuities and/or discontinuities.

As indicated previously the following primary data sources are drawn upon to respond to this question:

- Questionnaire (A1)
- Interviews prior to classroom observations (A3)
- Classroom observations – the fundamental and most critical data source (A4)
- Teacher documents (A5)
- Teacher records (A6)
- Student notebooks (A7)
- Student records (A8)
- June and November examinations (A9)
- Interviews after observations (A10)

I first examine Dinzi's reported assessment practice as revealed in the questionnaire (A1) and in the interviews (A3) to seek connections/disconnections with her understandings and beliefs about the policy, with the assessment policy and with the kinds of changes made, if any.

#### **Reported Practice**

##### **Evidence from the Questionnaire (A1)**

Here I report on the Dinzi's responses to the questionnaire (A1) on the match between her assessment practice and the assessment policy.

Dinzi claimed that most of her assessment practices mirrored the requirements of the policy, such as: assessment informs and improves her curriculum and assessment practices; assessment offers all learners an opportunity to show what they know, understand and can do; assessment helps learners understand what they can do and where they need to develop further; her assessment practices are sensitive to gender and learners' abilities; assessment is continuous; assessment decisions are based on pragmatic, trial-and-error grounds; facts, applications and higher order thinking skills are assessed; uses the criterion-referenced approach; assessments are not restricted to tests only; assessment is always undertaken for a specific purpose; learners are involved in assessing their own work; learners are involved in assessing the work of their peers; learners are provided with opportunities to reflect and talk about their learning and achievement; a wide range of assessment methods are used confidently and appropriately; assessment information is used to decide what to do next with individuals, groups or the class; portfolios are built over a period of time; marking involves both verbal and written feedback; marking focuses on the learning intentions as the criteria for success; prompt and regular marking occurs; the outcomes of marking, along with other information, are used to adjust future teaching plans; and reporting of results is both informal, namely dialogues in class and formal, namely written reports, amongst others (B1).

However she reported that there was room for improvement in some of her assessment practice such as generating and collecting evidence, evaluating this evidence against the outcomes, recording the findings of the evaluation and using the information to assist learners' development and improve the process of teaching and learning; identifying the key learning outcomes so that assessment against them can be made and used to help develop learning; assessment decisions are based on thinking through the purpose and principles of assessment; assessment informs daily and weekly practice; assessment allow learning to be matched to the needs of the learners; and prompt and regular marking takes place (A1).

She did not make any claim to show that her assessment practice does not mirror the assessment policy or requires re-thinking (A1).

The analyses of her claims suggest that most of her assessment practices match the requirements of the new assessment policy. I followed up these claims in the interviews for deeper information regarding her assessment practice.

#### Evidence from the Interviews (A3)

During the interview prior to the classroom observations Dinzi reported that she used various forms of assessment in her Grade 8 Natural Science class such as oral assessment, class-work, homework, experiments, investigations, assignments, portfolios, projects, tests, and interviews (A3). She added that she gets students involved in the assessment in the form of self-assessment and group assessment (ibid). She also indicated that she planned for assessment because:

*[For] each and every lesson you've got to have ... how we are going to assess them. I think that is very important.*

(A3)

She reported that as a result of the new assessment policy she changed her assessment practice:

*Well I would say I have changed because I am able to assess the students randomly at any time. For example, I can assess them maybe weekly or maybe daily. It's unlike in the old time where we had to assess only by giving the children tests,...there is a mountain of tests. Now by even giving them class work, there are some class work whereby you feel you assess this one, allocate marks to that class work or homework.*

(A3)

As indicated, her claims suggest that she has changed her assessment practice. I will now probe deeper into the dynamics of her classroom practice to explore whether it does actually mirror her stated claims, whether it does reflect her understandings and beliefs as reflected in the previous section, to get at her deeper, tacit knowledge that may have been hard to obtain during the interviews, and to investigate its relationship to the assessment policy. This might lead to different and more sophisticated insights that will help me craft a more productive understanding of the relationship between policy and practice in the context of educational change or transformation.

### **Evidence from the classroom observations**

I had observed seventeen lessons in Dinzi's Grade 8 Natural Science class in a period of six continuous weeks from July 2002 to September 2002 (A4). One of these lessons was conducted in the science laboratory and one test was administered during this time.

In the first observed lesson (A4, 24 July 2002) Dinzi handed out a prepared worksheet to the thirty-eight students and requested that they answer the four questions that appeared on the worksheet. It seemed that the worksheet had been copied from a textbook because at the top of the page "UNIT 13" had been written and at the bottom of the page "36" had appeared indicating a page number. She read out the four questions aloud before requesting students to work in pairs to answer the four questions. They did not work in pairs but in groups of varying size depending on their choice. Most students seemed uninterested and were screaming across the class to such an extent that Dinzi had to repeatedly shout "shut up". This did not deter them; in fact some were talking to students outside the classroom via the window. Only four students had their notebooks in class. I had observed a group of six students who had been discussing the 'objectives' written on the worksheet and not the questions. They had not written anything. Ten minutes later Dinzi, standing in front of the class, provided the answers orally. Neither the teacher nor the students wrote anything. There was no chalk or duster in the classroom. During this lesson:

- The purpose of the lesson was not made clear to the students.
- The outcomes for the lesson were not given. The teacher made use of objectives, a practice that had been part of the old system.
- No assessment took place either by the teacher or the students (I also observed the students' notebooks for evidence of assessment, there was none).
- Neither the teacher nor the students did any writing.
- The teacher requested students "to paste your worksheets" as homework.

(ibid)

The issues relating to assessment emanating from this observation include:

- Why did Dinzi not make the purpose of the exercise clear to students?
- Why did she not provide the outcomes for the exercise?
- Why is she still using objectives, a characteristic of the old system of education?
- Why did she not assess this work?
- What is her understanding of ‘oral question and answer’? Who provides the questions and answers?
- Why were students not involved?
- Why was there a complete absence of any writing both by the teacher and by the students?
- Why is there a visible lack of discipline by the students in this classroom?

I had observed a similar pattern in the third lesson (A4, 31 July 2002) except that after issuing the hand-written worksheets Dinzi had informed the students that she would be using “certain assessment criteria to assess you”. She wrote the ‘assessment criteria’ as she understood it on the board as follows:

- a) Correct formulae ✓
- b) Correct units ✓
- c) Correct multiplied ✓
- d) Logical steps ✓

Again in this lesson Dinzi did not inform the students the purpose of the assessment; neither did she define the outcomes to be assessed. This begs the question why? Her understanding of assessment criteria is different from that given in the policy? This raises the question: Why and how did she come to this understanding? She seems confused between the uses of criteria in a rubric with assessment criteria. What implication does her understanding of assessment criteria for the successful implementation of the assessment policy and on student achievement? She collected five students’ notebooks and initialled and dated them. She informed me that this was a way of assessing the students work but that she did not record their work. Is this a type of informal assessment? If it is, how does she use the information, if she uses it at all?

Her misunderstanding of the concept ‘assessment criteria’ is also revealed in one of her Grade 9 mathematics class (A4, 21/08/2002). I had observed four lessons in her Grade 9 mathematics classes to supplement the Grade 8 Natural Science observations. The purpose was to observe whether she practised differently in different grades and for different subjects/learning areas. The following appeared at the bottom of the hand-written test question paper that she had administered to the class:

ASSESSMENT CRITERIA	4	3	2	1
1. Addition and subtraction				
a) Like terms below each other				
b) Rules for addition				
c) Rules for subtraction				
2. Multiplication				
a) Sign rules				
b) Exponential rules				
c) Correct multiplication and division				

(Copy from test question paper, 21 August 2002)

It seems evident that Dinzi has different understandings of the concepts ‘criteria’ that are used in a rubric, a tool used for assessing students, and ‘assessment criteria’ that forms the foundation of assessment in the outcomes based assessment system. This different understandings or maybe misunderstanding raises serious questions not only for the successful implementation of the assessment policy and the new curriculum policy but also for outcomes-based education generally.

In the other three lessons when she issued worksheets similar patterns were observed. The purpose of the work was not given. None of the worksheets had outcomes indicated on them. Dinzi did not assess the students’ work. Neither did students assess their work. How will Dinzi and the students know whether they are achieving the outcomes?

Only during one of the observed seventeen lessons did Dinzi take her class to the laboratory (A4, 7 August 2002). While students were running around in the science

laboratory, she handed out worksheets and told them in the midst of the noise that “*we are going to find out about the topic density*”. Is this a clear purpose of the lesson? While the worksheet had the words ‘specific outcomes’ on it, no specific outcomes were written, but the space was left blank. This begs the question why? She requested that they form four groups, about ten per group with a maximum of twelve per group. When she said “*one member from each group come to the front for some apparatus*, a whole group of students ran noisily to the front table. It became extremely noisy with students not only screaming loudly across the classroom but also dragging the laboratory stools. It made it extremely difficult to hear Dinzi’s voice which was drowned by the students’ noise. Dinzi wrote on the board ‘pipette’ and showed them what it was. One student walked out of the laboratory without excusing himself – Dinzi either did not notice or did not mind. The students were moving from group to group just to chat to others. Discipline had totally collapsed when the teacher screamed: “Quiet in your group. Shut up!” Why did discipline collapse? She read the procedure aloud to them and asked one member per group to “fill the plastic basin with water”. They did but not without throwing water onto their friends, and messing the floor and the tables. Dinzi requested that they complete the table in their worksheet after they placed the objects into the water. She had to scream to get their attention. She told them what to do and re-drew the table on the board.

The group that I observed did not know the difference between a rubber stopper and a cork stopper as this was the first time that they saw them and their first visit to the science laboratory. Dinzi told them to place a tick in the relevant column. The observed group threw all the objects into the water simultaneously without writing what they observed. One student from another group asked the teacher: “What is ‘sinks’ and what is ‘floats’”? Dinzi explained the concepts very briefly. The observed group placed the cork stopper into the water, and filled in the table “cork sinks” (when it floated) in the column ‘floats’. The teacher tried to use one group to demonstrate to the class but was not successful because students were not paying attention but were playing with the water and apparatus. The observed group did not know what to do thereafter and were just playing with the water and apparatus, like the others until the lesson ended.

Despite all this effort, Dinzi did not mention the outcomes to be achieved in this lesson and she did not collect the students' work to assess them. This begs the question why? How will Dinzi and the students know whether they had achieved what they were supposed to have achieved? How and when will feedback be given to students, if it is given?

One of the worksheets that she gave to her students had in addition to activities four 'projects' to be done (A4, 16 August 2002). This worksheet was a photocopy from a textbook because at the top of the page appeared "ACTIVITY 4" and at the bottom "38" indicating a page number. Dinzi did not inform the class the purpose of the lesson. She also did not provide the outcomes for the lesson, either orally or on the worksheet (ibid). The activities were not done practically but orally with Dinzi reading the activities listed in the worksheet aloud as she stood in front of the class, and provided the answers orally. This begs the question why? What was the purpose of the worksheet? Furthermore, she only went over half the activities. She requested the students to do the 'projects' listed in the worksheet at home. But no student did it (see A4, 19 August 2002). The teacher provided the answers to the questions based on the first two 'projects' orally while standing in front of the class (ibid). The questions relating to the other two 'projects' were not done at all. Dinzi did not collect the students' notebooks. This lesson raises many issues. Why does she not make the outcomes to be achieved explicit? Why did she not collect and assess the students' work? Why does she provide all the answers, and why orally only? Why does she not find out the reasons students do not do their homework? What are her understandings of the concepts 'activity' and 'project'?

Two significant findings in the four mathematics classes (A4, 7/8/02, 8/8/02, 14/8/02, 21/8/02) and one English class (A4, 8/8/02) had supported my observations and findings in her Grade 8 Natural Science classes. One was her 'teacher-centred' and 'talk-and-talk' approach to teaching and learning characterised by Dinzi standing in front of the class asking the questions and providing the answers with limited if any involvement of students. Second was the lack of student discipline – students strolled into the class late, talked loudly to one another and across the classroom while the teacher was teaching, in fact the noise created by the students made listening to what the teacher said extremely difficult with Dinzi occasionally requesting students to

“shut up” (A4), and the students were eating openly during lesson time. This raises fundamental questions for successful educational change. First for the new system of education that is “student-centred” (Department of Education, 1998: 9). Second for teaching and learning generally, that is, how can effective teaching and learning and assessment take place in the absence of discipline in the classroom? And what kind of values and attitudes are being inculcated in students?

All sixteen of the seventeen lessons observed were characterised by the teacher asking questions and providing most if not all the answers, by a ‘talk and talk’ method and a ‘teacher-centred approach’ with the Dinzi standing in front of the class. The following lesson illustrates the modal patterns of her classroom practice (A4, 1 August 2002):

Teacher: *We want to calculate density, where do we start? Quickly, quickly.  
Density is mass over volume.*

She wrote the formula for volume on the board and calculated the volume. She then asked:

Teacher: *What do we do with the volume?*

She worked out the problem on the board and explained what kilogram per meter cubed meant. She told them:

Teacher: *If other units given, for example, given density and volume and asked to find mass, how do you do it?*

She wrote the formula for density on the board. The teacher used a mathematics example to explain further by also writing on the board:

Teacher: *Density is mass over volume.*

She wrote on the board:  $\text{Density} = \frac{\text{Mass}}{\text{Volume}}$

Teacher: *Given 10 grams over centimetres cubed as density and 15 grams as mass, what is the volume?  
If you are given six is equal to eighteen divided by what?*

She wrote on the board:  $6 = \frac{18}{?}$

Teacher: *How do you find it?*

Amidst the shouting of answers, one student screamed “divide by 18”.

The teacher continued:

Teacher: *The volume is equal to N for numerator over the Q for quotient.*

She wrote on the board:

$$\text{Volume} = \frac{N \text{ (for numerator)}}{Q \text{ (for quotient)}} = \frac{\text{Mass}}{\text{Density}}$$

One student informed the teacher that he did not understand the lesson but the teacher continued:

Teacher: *Volume is equal to the mass divided by the density.*

She wrote on the board as she stated:

$$V = \frac{M}{D}$$

She continued to explain using science and mathematics information:

Teacher: *In science density is equal to mass divided by volume. In maths the quotient six is equal to eighteen, the numerator, divided by three the numerator.*

She wrote on the board:

Science		Maths (numbers)
Density	$= \frac{\text{Mass}}{\text{Volume}}$	$6 = \frac{18 \text{ N (numerator)}}{3 \text{ D (denominator)}}$

Teacher: *“Volume is similar to finding quotient in maths”. Density is equal to mass divided by volume. Volume is equal to mass divided by density. Mass is equal to density multiplied by volume*

She wrote on the board:

- 1) Density =  $\frac{\text{Mass}}{\text{Volume}}$
- 2) Volume =  $\frac{\text{Mass}}{\text{Density}}$
- 3) Mass = Density x Volume

Dinzi did not mention nor write nor use the outcomes to be achieved in any of the observed seventeen lessons, or in the one test that I observed her administering. This test had three factual questions that had been done in class before, which means that rote learning is being encouraged. This begs the question why higher order questions are not set? Furthermore, the purpose of this test was not made transparent to the

students as required by the new assessment policy (Department of Education, 1998: 10). Why did the teacher not inform the students the purpose of the test or assessment? After the test Dinzi informed me that this was a standardised test:

*To check with other teachers doing the same thing with students, its set as the pacesetter so that I mustn't relax, I must do my work ... and to check the level of the students on the topic.*

(A10)

How did she come to that understanding of 'checking'? Why is 'checking' so important? What is meant by "I mustn't relax"? Dinzi did not mention the achievement of outcomes at all. This begs the question why? A week later Dinzi informed me that she did not mark the test as yet because she was *too busy preparing for the launch of the library* (personal communication). She also did not have a marking memo or mark sheet as yet.

My summary of the modal pattern of the seventeen observed lessons are (A4):

- What students were to learn had not been clearly defined.
- Outcomes were conspicuous by their absence.
- Lessons were teacher-centred with the teacher standing in front of the class giving information or asking questions and providing answers orally.
- Students' work was not assessed by the teacher.
- Students were not involved either in the lesson or the assessment.
- The teacher had administered one formal test, and only facts were assessed, but the test was not marked.
- Continuous assessment was conspicuous by its absence.
- Different forms of assessment such as oral assessment, class work, homework, experiments, investigations, assignments, portfolios, projects, and interviews were absent. (Students reported that they did not do any assignments, projects, or portfolios this year (see A4 15 August 2002).
- Misunderstanding of criterion-referenced assessment.
- No records of assessment data.
- No teacher guidance on how to improve.
- Very little writing on the board by the teacher.
- Very limited writing by students in their notebooks.

- Most students did not have notebooks during lessons.
- Students did not have textbooks in class.
- Lessons never started on time but between ten and fifteen minutes late.
- Students from outside the classroom not having lessons but disturbing the lessons of those inside classes.
- The teacher had been using two outdated textbooks, namely, “SEP – Physical Science Std. 6” dated 1980-1985 and “General Science in Action Std. 6” dated 1984.

These findings reveal firstly that there seems to be a correlation between her surface understanding and varied beliefs of the new assessment policy and her assessment practice, secondly that there is a mismatch between what and how Dinzi claims she assesses and what was observed, and thirdly a disconnection between how Dinzi practices assessment in her classroom and the demands made in the new assessment policy. This begs the question why?

#### Evidence from documents that Dinzi possess (A5)

Dinzi showed me her personal copies of the following documents with regard to assessment:

- The “Provincial Assessment Policy: From Grade R to 9 in the General Education and Training Phase and ABET. July 1999, Draft 8” which she said that she received in 2002 at a training workshop. In the questionnaire she indicated that this policy is easy to understand and implement (A1). During the interview she stated that this policy was not discussed properly at staff or departmental meetings and “it’s not constantly referred to but we refer when there’s a particular problem” (A3).
- “Circular Number 5/2000: National Assessment Policy as it relates to OBE and the implementation of Curriculum 2005 and Assessment in GET Grades” dated 19/01/2000 from the provincial department of education. She reported that she received this from the school management in 2002 and has read and understood it. This circular claims that it “**aims to assist educators in understanding, developing and implementing assessment practices** that are

appropriate for Curriculum 2005” (A5, emphasis in original). It is detailed in terms of what is expected of teachers (ibid). This raises the question: why did Dinzi not use this?

- “Natural Sciences: Assessment of Students in Grade 9” compiled by a Natural Science Facilitator but is undated. This document provides the reasons for assessment, the different approaches, types and tools of assessment as well as examples of assessment activities and recording sheets. She reported that she received this at a workshop in the course of this year (2002) but could not remember when. She reported that it was for Grade 9 as indicated on the cover therefore she did not use it. This raises the question regarding the value of the workshop? What did she learn/not learn at the workshop? Why could she not use the information in her Grade 8 class?
- “Rubrics”. Dinzi reported that she had received this document at a Grade 9 assessment course that she had attended in July 2001. It was at this course that she first came across the term ‘rubric’. She reported in the interview that she has problems with developing rubrics (A3)

These three documents collectively seemed to provide a relatively comprehensive landscape of the new assessment system, and some provided guidelines for classroom practice. It raises the question why Dinzi does not practice assessment as indicated in these documents that are shaped by the new assessment policy?

#### Teacher Records (A6)

#### Lesson Preparation

From July Dinzi reported that she was in the process of developing lesson preparation files for Grade 8 Natural Science (personal communication). I did not see them during my seventeen classroom observations and other visits including the follow up visits in October and November 2002. She reported that the reason for not having these documents was that the temporary teacher who had taught the class in the second term had taken the file away. This raises the question of whether she does plan for assessment, and if so how? Also if she does not plan for assessment how, does it affect her assessment practice?

### Notes

I had however observed a hand written page with what seemed a title “RUBRIC OF ASSESSING A CALCULATION FOR DENSITY” for grade 9 (A4, 3). It had the words ‘specific outcomes’ with SO<sub>1</sub> (for specific outcome 1) left blank and next to SO<sub>2</sub> was written “CONCEPTS and PRINCIPLES”. I did not observe Dinzi using this in her class despite her teaching ‘density’ for the entire observation period. This begs the question why? Is she confused between Grade 8 and Grade 9 work? Why was specific outcome one left blank? Why was specific outcome 2 incompletely written?

### Mark sheet for Grade 8 B

From July 2002 Dinzi repeatedly reported that either she was still working on the mark sheet where she recorded students’ marks or that she had left it at home. In fact, towards the end of the third term the class teacher of Grade 8 B (not Dinzi who is the learning area teacher) informed me that she had not as yet received the continuous assessment marks for Natural Science from Dinzi who “needed to prepare it correctly, and she would be doing this over the holidays” (personal communication, 21 August 2002). The issue is why did Dinzi not have a mark sheet ready? How does she record student achievement scores? What does preparing it correctly mean? By the end of September when I did not see nor receive the mark sheet from Dinzi I decided to stop pursuing the matter further. Then on 28 November 2002 I had received a copy of the mark sheet from Dinzi. It was recorded in the same form that had been used for the class register. Next to the name column was a column that indicated the maximum mark of “25” below which was written “EX” that I understood to mean examination, followed by another column indicating the maximum mark “75” below which was written “Y.M.” that I understood to mean year mark, followed by a column indicating a maximum mark of “100” below which was written “F.M.” that I understood to mean final mark. A column “SYMBOLS” followed this. The symbols were “O, A, PA, NA” meaning ‘outstanding’, ‘achieved’, ‘partially achieved’ and ‘not achieved’ respectively, and this symbol was written to corresponded to the relevant final mark of the student.

The science head of department had informed me previously that the:

- November examination mark had to be converted to a mark out of 25. I figured this was represented by the “EX” column on Dinzi’s mark sheet.
- Year mark or continuous assessment mark for Grade 8 Natural Science was to add up to a mark of 75 and would be made up of:
  - Tests (including June examination)
  - Investigations
  - Assignments
  - Projects

I figured this was represented by “75 Y.M” in Dinzi’s mark sheet.

- Promotion or final mark was 25 + 75, the total being 100 as indicated on Dinzi’s mark sheet.
- Each symbol corresponded to percentages and levels as required by the provincial Department of Education indicated in their District Memorandum dated 18 November 2002, and that is was amended for 2002 only.
- She had not moderated the mark sheet of Dinzi’s Grade 8 B class because Dinzi did not have it ready (as at 25 November).
- She will not be in school from Friday 29 November 2002 as she would be marking matriculation Biology examination papers.

(Personal interview with the science Head of Department on 25 November 2002).

This mark sheet raises a fundamental question: How did Dinzi arrive at the year mark or continuous assessment mark for her Grade 8B class? Dinzi reported that the continuous assessment mark was constituted from:

*The notebook, and then you also check the handouts of the students ... and then the experiments...then the exam mark, ... then the assignment.*

(A10)

The only form of assessment that is consistent with what the science head of department requested was the assignment. Furthermore, the examination mark was not supposed to be part of the continuous assessment mark. But when continuous assessment was practised is not clear because I did not observe any during the seventeen observed lessons and follow up visits to the school. The students also reported that they did not do assignments. My classroom observations revealed that

the notebooks and experiment were not assessed (A4 and A7). The issues that these raise are: Did the science head of department or the deputy principals or the principal monitor and moderate how continuous assessment scores were generated and assessed, and if so how and when was it done? How will students be affected with a lack of consistency from one teacher to another?

Dinzi reported that the Grade 8B class was given:

*Not a project as such, we made it an assignment which I think they don't differ. They did an assignment on density.*

(A10)

How does Dinzi's understanding of investigations, projects and assignments compare with that of the science head of department and the other science teachers? How does the understanding impact on her assessment practice and student achievement? Do some students benefit while others are disadvantaged? What implication does this have for equity? Students also reported that they did not do any investigations and projects (A4, 15 August 2002). Is there a discrepancy between what Dinzi claims she does and what she actually does in her classroom? If so...why? She also reported that "now what we do, all the test marks are then converted to 75" (A10, emphasis added). Does this imply that only test marks are used to compute the continuous assessment marks? Why are there anomalies in her responses? The importance of monitoring and moderating the continuous assessment marks should be seen in the context of Dinzi's response:

*Sometimes a teacher can cheat; just write marks only to find out you haven't given the student any work or haven't marked the work of the student.*

(A3)

This seems a serious issue for the successful implementation of the continuous assessment model. What are the implications if the marks, both continuous assessment and the final mark, are not monitored and moderated effectively and efficiently from the beginning of the year? How will students be affected in the absence of monitoring and moderation? What does it say about the new assessment system?

She also reported that the final mark is used solely for promotion purposes because:

*[If] the child has been promoted to the next grade then there's nothing that we can do to change it, that child is over.*

(A10)

Is this an appropriate use of the examination result, which the new policy urges us to move away from? The broader purpose of assessment is provided in detail in the new policy (Department of Education, 1998: 10-11). Why does she not know the broader purpose of assessment as indicated in the new assessment policy indicated above? Why does she still believe in this narrow purpose of assessment?

#### Student notebooks (A7)

During the seventeen classroom observation lessons I observed the notebooks of students who had them in class. It is important to note that on any one day only thirty to thirty five percent of the students had notebooks in the class. In fact on one particular day not a single student had a notebook in Class (A4, 20 August 2002). Dinzi reported that the reason for this is:

*They're just careless and lose them because the school provides them with notebooks.*

(A10)

This raises many questions: Why is Dinzi not assertive with the students who do not have notebooks in class? Why are they irresponsible? The analysis of the notebooks revealed the following:

- There was no evidence of outcomes being used in the notes or any worksheets from the beginning of the year.
- No evidence of work being assessed by the students or teacher except for the teacher's signature and the date in some books. Although Dinzi reported that "it is continuous assessment" and that she gave them marks in the notebooks (A10) I did not see any in any marks in the observed notebooks. This signing pattern also varied, - of the six notebooks analysed, two had been signed once, while the four had not been signed at all.
- Incorrect work goes uncorrected, for example, one book and this was a book of a better student, revealed the following:

$$\begin{aligned}\text{Density} &= L \times b \times h \\ &= 4\text{cm} \times 3\text{cm} \times 2\text{cm} \\ &= 24 \text{ m}\end{aligned}$$

Incorrect work seemed prevalent in most notebooks despite Dinzi reporting:

*They are young and need to be checked if they follow and do the right thing. They don't write clearly, make spelling mistakes or they don't interpret correctly so you've got to guide them and try to remedy it in class.*

(A10, emphasis added)

The remedies were neither evident in the notebooks nor during my classroom observations. Why is there this inconsistency between her stated claims and her actual classroom practice?

- There was great disparity in the sets of notes and worksheets amongst the various students - no two students had same or similar notes and worksheets. For example, one student had incomplete notes from February until March, and his next set of notes was for 31 July, and that consisted of five incomplete, incoherent lines only, and that is where it stopped. There were no notes for August and no worksheets at all. While another student had no notes from February, but incomplete notes and worksheets from July to August 2002.
- No notebook had the worksheet or exercise that had been conducted in the laboratory.
- Most notebooks contained notes from other learning areas as well.
- Most notebooks looked dirty and untidy and were coloured over. This colouring over the notes and worksheets obscured the notes and gave the book an unsightly and un-educational look.

This evidence reveals an absence of outcomes-based assessment generally and continuous assessment specifically being practiced by the teacher. In addition, the teacher was not using information about students' performance/non-performance or achievement/non-achievement to correct and improve learning. This begs the question why, since it has serious implications for the successful implementation of the new assessment policy.

Other student records (A8)

Test books

Dinzi reported that she did not see any test books of students this term but:

*[Thinks] they have flip files in which they place all their tests.*  
(A4, 21 August 2002, emphasis added).

Upon enquiry from the students they reported that they had no pages with tests or files or test books (ibid). However two students showed me exercise books that they called their test books. One had answers to what seemed a science test because the heading was “Natural Science Test” dated 25 April 2002, but no question paper, and this was all that had been recorded to date as at 21 August 2002. The other had what seemed like answers but completely different to the first student and it did not have a heading or date.

This raises questions with regard to evidence of students’ achievement results. Where and how do students keep evidence of their achievement results? How will they learn from their mistakes or improve their learning if they do have records of achievements? If educational administrators, and students’ parents’ or guardians need information about their children’s performance, how will it be responded to if there is no evidence of achievement?

Projects

I did not observe any project work of the students. They also reported that they did not do any projects. This begs the question why?

Assignments

Again I did not observe any assignments of the students. They also reported that they did not do any assignments. This begs the question why?

### Portfolios

I did not observe any portfolios for this class. The students also reported that they had no portfolios; in fact they did not understand what a portfolio was until I described it in detail to them. This raises the question why because portfolio assessment is a requirement of the new assessment policy that states “samples of students’ work included in portfolios should show that they are able to integrate knowledge, concepts and skills, and that students have not been assessed only on memorisation of information” (Department of Education, 1998: 12). On what will Dinzi base student progress in the absence of portfolios? Will the students be disadvantaged in any way and how? Should this process of keeping portfolios be monitored and moderated, by whom, how and when? What are the consequences to teaching, learning and assessment if portfolio assessment is not implemented by teachers?

### Reports

Dinzi informed me that students received four reports, one per term (personal communication).

#### First Term Report

I was unable to get the first term reports from the students because most reported that they could not find it whilst others reported that it was with their parents who did not live with them, and others kept forgetting.

#### The Half-Year Report

The half-year report was called “Senior Phase Progress Report” (A8, 3) issued at the end of the second term in June 2002. The space for the ‘term’ to be written was left blank, and so was the space for the ‘number of days the student was absent’. The new assessment policy requires that the report must “comment on the attendance of the student at the learning site” (Department of Education, 1998: 13) but this was not adhered to, why? It had three columns; one reflected the “learning area”, another “marks achieved” and the other the “effort symbol” (A8, 3). In the column ‘learning

area' acronyms were used, for example LLC 1, NS, HSS and so forth for each of the eight learning areas, but what these acronyms meant was not indicated in the report. Are assumptions made that parents and the students know what these acronyms mean? How valid are the assumptions? In the column 'mark achieved' there was no total indicated, for example, for NS (Natural Science) a student's mark was indicated as "76" but the total was not indicated, that is, 76 out of what? In the 'effort symbols' column symbols such as "A", "S", "NAS" were used with their meanings indicated as, "achieved", "satisfactory" and "needs additional support" respectively. This begs the question: 'achieved what'? How will students, teachers and parents know what the students achieved and how? What does 'satisfactory' mean? In the 'remarks' column, which was relatively spacious to accommodate a lengthy remark, a one-word remark was written: "satisfactory". What does this 'satisfactory' mean to students and their parents/guardians? This is inconsistent with the policy requirement that requires the reporting process to comment "on the personal and social development" and to "give an indication of the strengths and developmental needs and identify follow up steps for learning and teaching" (Department of Education, 1998: 13). Why is this policy requirement not being complied with in the report? Does the teacher believe that this form of communicating assessment results meaningful to students, parents and to the education system, including herself? When I enquired from Dinzi whether students receive additional support she responded that they do in the form of after school support. But Dinzi did not refer to the progress/non-progress of students as indicated in the half-year report during my seventeen classroom observations. The question is why?

### Third Term Report

Dinzi informed me that that there would be no report as such in the third term, but only a mark sheet indicating the continuous assessment marks (personal communication, 21 August 2002). However she did not have the mark sheet ready at the end of the term. The class teacher of Grade 8 B (not Dinzi who is the learning area teacher) informed me that she had not as yet received the continuous assessment marks for Natural Science from Dinzi who "needed to prepare it correctly, and she would be doing this over the holidays" (ibid). I did not see nor receive a copy of this continuous assessment mark sheet despite several attempts to the point of being a

pest. By the end of September I decided to stop pursuing the matter further. The question is why did Dinzi not have the continuous assessment mark ready? What implication does it have not only for student assessment and improvement but also for the successful implementation of the new assessment policy that is based on the continuous assessment model? How will students know their performance for the third term? This seems in contradiction to the policy requirement for “timeous communication of assessment results” (Department of Education, 1998: 10).

### Year-End Report

The year-end report was called “Senior Phase School Report” (A8, 4) issued to parents at the Parents’ Meeting on 1 December 2002. The space for the number of days the student was absent had been left blank as had been for the half-year report. This is inconsistent with the new assessment policy that requires the report to “comment on the attendance of the student at the learning site” (Department of Education, 1998: 13) but this was not adhered to. Why was this so? It again had three columns; one reflected the “learning area”, another “marks achieved” and the other the “level achieved” (ibid). In the column ‘learning area’ acronyms were used again, for example LLC 1, NS, HSS and so forth for each of the eight learning areas but what these acronyms meant was not indicated in the report. Again are assumptions made that parents and the students know what these acronyms mean? How valid are the assumptions? In the column ‘mark achieved’ there was no total, indicated, for example, for NS (Natural Science) a student’s mark was indicated as “4” but the total was not indicated, that is, 4 out of what? In the ‘level achieved’ column letters such as “A”, “PA”, “NA” were used, but what they meant was not indicated. What is the meaning of ‘level’ achieved? Are they assuming again that parents and students will know what ‘A’, ‘PA’, ‘NA’ mean? What if parents do not know? However what was indicated in the “KEYS” section of the report was “Level 4, Level 3, Level 2 and Level 1 with their meanings, “excellent achievement (70%-100%), achieved (40%-69%), partially achieved (35%-39%), not achieved” respectively. In the relatively large ‘remarks’ column was written either “Achieved” or “Not achieved”. This raises the question again, achieved or not achieved what? Is this clear and meaningful to students, parents, and other stakeholders and to the education system? The new assessment policy requires the report to include comments “on the personal and social

development” and to “give an indication of the strengths and developmental needs and identify follow up steps for learning and teaching” (Department of Education, 1998: 13). Why is this policy requirement not adhered to in the report?

#### Examination Question Papers (A9)

Dinzi reported that two examinations were written, one in June - the half-year examinations and one at the end of the year – the final examinations (personal communication)

#### Half-year examination question paper

It was impossible to obtain a copy of the half-year science question paper from Dinzi, the science head of department, the other Grade 8 science teacher or from the students. None could find a copy. The way teachers and students manage the storage of documents is open to question. However I was able to obtain loose answer sheets from four students. These answer sheets revealed that three questions were set and all required factual, short answers, such as “kinetic energy”, and “conductors of heat” that carried two marks each. The question is why were only low-level factual questions asked? Why were higher levels, more cognitively demanding questions not tested?

#### November examination question paper

Dinzi and the other Grade 8 Natural Science teacher were examiners of this paper, while the science head of department was the moderator. The students were expected to respond to three questions with a total of twenty five marks in one hour. All questions were low level, factual questions, such as, “mention three ...; what are; name five; calculate the ...” This raises fundamental issues. Why were questions confined to this low level of cognitive operation? Why did they not assess higher levels of knowledge and skills? What are the implications of this for assessment change and educational change generally?

The evidence from all these data sources, namely, teacher documents and records, student notebooks and records and the examination question papers, suggest firstly a mismatch between Dinzi's stated claims and her assessment practice, secondly a correlation between her understanding and beliefs about the new assessment policy and her assessment practice, and thirdly a disconnection between Dinzi's assessment practice and the expectations of the new assessment policy. These findings beg the question why, the response to which is the focus of Chapter Eight and the third research question, namely, 'How the continuities and discontinuities between the official assessment policy and the teachers' assessment practice could be explained?

It seems clear that Dinzi has a surface understanding of the new assessment policy, that her beliefs or attitudes about the policy and the way it was introduced had been mainly negative, and her assessment practice was very weakly connected to if not disconnected from the official policy on assessment. These findings again beg the question: Why does Dinzi have a surface understanding of the new assessment policy? Why is she negative towards the policy and the way it was introduced to her? Why is there a distance between her assessment practice and the new assessment policy? I shall take up these questions in Chapter Eight as I had indicated earlier.

### **Summary of Chapter Five**

In this chapter I described Dinzi's understanding and beliefs or attitudes concerning the new assessment policy in response to the first research question of the study. The chapter also describes how this teacher practices assessment in her classroom, thereby responding to the second research question. The findings suggest that Dinzi has a surface understanding of and negative beliefs or attitudes about the new assessment policy, and that her assessment practice is mostly discontinuous with the new assessment policy. I provide possible explanations for the findings in Chapter Eight.

The next chapter would examine Hayley's understanding and beliefs with regard to the policy and the way in which she practices assessment in her classroom.

## CHAPTER SIX

### *The Case of Hayley: In Search of Order and Certainty*

*I think I must resign and return in five years when the department has figured out all their mistakes<sup>1</sup>*

*To be very honest, the assessment for me is a nightmare.<sup>2</sup>*

*I think all of this is a lovely story.  
Its ideal, but we don't live in an ideal world.  
We live in a world where people are not motivated  
at all to come to school.<sup>3</sup>*

In the previous chapter I described Dinzi's understandings and beliefs concerning the new assessment policy, and how she practiced assessment in her classroom. This chapter describes Hayley's understanding and beliefs about the new assessment policy, and how she implements the new assessment policy. This case data on Hayley's understandings, beliefs and practices regarding assessment are used in Chapter Seven to compare the two teachers' understandings and beliefs, and assessment practices, and in Chapter Eight to answer the broader question as to how the continuities and the discontinuities between the new official assessment policy and the two teachers' assessment practices be explained.

I employ the same framework to construct Hayley's case study report as Dinzi's so as to enable the study to compare the two teachers' understandings and beliefs, and assessment practices with more coherence and elegance in the next chapter. This chapter therefore provides a detailed descriptive profile of Haley, the school, the observed Grade 8 Natural Science class, followed by a description of her understanding and beliefs about the new assessment policy. This is followed by a description of her observed assessment practice. In developing the case report of Haley, I draw on evidence from the various data points elaborated and discussed in Chapter Four.

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<sup>1</sup> Quotation from an interview with the teacher (November 2002)

<sup>2</sup> Quotation from this teacher during an interview (July, 2002)

<sup>3</sup> Quotation from this teacher during an interview (August, 2002)

The following methodological framework and research instruments were employed in this chapter to guide the construction of the case study report of Haley:

- Profile of Teacher Haley
- Profile of the school inhabited by Haley
- Profile of the observed class – Grade 8 Natural Science class
- Haley’s understandings and beliefs with regard to the policy using evidence from the following primary data points:
  - Questionnaire (B1)
  - Free writing schedule (B2)
  - Interviews prior to classroom observations (B3)
- Haley’s practice of assessment with evidence emanating from the following primary data sources:
  - Questionnaire (B1)
  - Interviews prior to classroom observations (B3)
  - Classroom observations – the fundamental and most critical data source (B4)
  - Teacher documents (B5)
  - Teacher records (B6)
  - Students’<sup>4</sup> notebooks (B7)
  - Student records (B8)
  - Examinations – June and November (B9)
  - Interviews after observations (B10)

### Profile of Teacher Haley

The profile of Haley draws on information obtained during formal interviews, informal conversations, as well as from the bio data questionnaire, which the teacher completed. This profile is essential to the focus of this study because how policies are understood and used depends crucially on a number of contextual factors, as well as personal and professional traits. In other words this teacher

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<sup>4</sup> In the South African context the term ‘learner’ is used to refer to students and pupils. I will use the term ‘student/s’ in this study for practical reasons.

profile provides a personal context to complement and enrich the classroom level data.

Haley is a twenty-eight year old, level one educator. Her first language is Afrikaans, while English is her second language. Her knowledge of African languages is limited. She studied at the University of Pretoria where she obtained a Bachelor of Science Degree, with majors in Zoology and Physiology, followed by a Higher Education Diploma in 1996. This means that she is a fully qualified teacher of science.

Her first appointment as a teacher in 1997 was at this school, named Higgins High School<sup>5</sup>. Her five and a half years of teaching experience was confined to this one school. In this time she had taught Grade 8 mathematics for one year, Grade 10 Physical Science for two years, Grade 10, 11 and 12 Biology for five and a half years, and Grade 8 General Science (old syllabus) for two years and Grade 8 Natural Science (new curriculum) for one and a half years. This indicates that her experience with the new curriculum is limited to 18 months.

Haley is the class teacher of Grade 12 D. This means that she has responsibility for this class of students in terms of their attendance, their general conduct and performance in school, as well as reporting on their general progress. She teaches Natural Science to only one out of the six Grade 8 Natural Science classes, namely Grade 8 D, the observed class in this study. The principal and the management team of the school had nominated Haley as the Co-ordinator for Grade 8 Natural Science. This means that Haley is responsible for all the planning and preparatory work, such as compiling notes, worksheets, assessment exercises, and moderating the work for Grade 8 Natural Science because she has superior credentials compared to other Grade 8 Natural Science teacher, who is unqualified and inexperienced. She shares this “Grade 8 Natural Science package” (personal communication) with the other teacher who teaches the other five Grade 8 Natural Science classes. She has regular meetings with him and ensures that he does the work according to requirements. She also teaches Biology to two Grade 10 classes

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<sup>5</sup> Not real name, for purpose of confidentiality, pseudonym is used.

and to two Grade 12 classes. In addition, she serves as a Mentor Teacher to a Grade 12 class. As a Mentor Teacher she helps and supports this class for one period per week. The school has designated formal test periods on the timetable, and Haley serves as an invigilator for two Grade 12 classes. She teaches thirty-two periods<sup>6</sup> per week of the forty-two period weeks, which means she has ten non-teaching periods per week

Currently Hayley is not engaged in any formal studies, but she has received some training in Outcomes-based Education and Curriculum 2005. Between September 2000 and February 2002 she received a total of fifty-seven and a half hours training from various sources, such as district facilitators, university lecturers, and the teacher union she belonged to. These were held after school hours, either in the afternoons or on Saturday mornings. Most were conducted away from school and were “generic in nature and overwhelming; cramped, too much information, too much to remember, too much work to worry about, can’t remember a lot, not useful, but the Natural Science specific one was useful” (B1). She summed up her training with the claim that: “Generic training is a waste of time” (ibid).

Haley belongs to the Afrikaans teacher organisation known as the Transvaal Teachers Union (*Transvaal Onderwyseunie*). Her extracurricular duties include being a coach and organiser for athletics and netball.

#### Profile of Higgins High School

Higgins High School is located in a lower middle-class, suburban area about eight kilometres from the Pretoria city centre. It is a residential area occupied by Whites who are mostly in the upper-middle age to old age group, and belong to the middle to lower income group. The school had been originally established in the city centre in 1955 by the apartheid government to cater for students from the white population group (personal communication with the school principal). That school building had been burnt down and the school had been re-located to its current location in 1979 with the purpose of serving as a technical high school but

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<sup>6</sup> One period is forty minutes

that idea did not materialise (ibid). The school is thus forty-seven years old, twenty-four in the city centre and twenty-three in its current geographic location. Most White students from this suburb do not attend this school, but travel to other schools where Afrikaans is the medium of instruction (ibid). The school is supported by one of the twelve districts.

The total staff complement is fifty-five, made up of forty-two professional staff and thirteen non-teaching staff. The management team consists of the principal who is a White, female; one Deputy Principal, who is a White male; and four heads of department for the various subjects/learning areas, two White males and two White females, but no head of department for science as she had resigned from the profession in January 2002. However the senior Biology teacher provides assistance although his competency in Natural Science is very limited (personal communication with teacher). The principal had started her career as a teacher in this school. There are thirty-six other members of professional staff in the school; four Black Africans (all males), four Indians (three males and one female), three Coloureds (all females) and twenty-five are White (nineteen females and six males). This makes the teaching staff relatively heterogeneous racially, although white staff members remain dominant in this school.

The non-teaching staff includes one Secretary/typist, one Receptionist, one Accounting clerk, one Treasurer, one Laboratory Assistant, four caretakers responsible for school maintenance, and three other support staff, one to make photocopies, one to make tea and clean the kitchen and one to help in the tuck shop. The school is supported by a tuck shop and a clothing shop managed by a White female. There is also a strong, active and very effective School Governing Body that plays a leading role in school governance (personal communication with principal and teacher).

There are eight hundred and seventy seven (877) students in this school, five hundred and ten females and three hundred and sixty seven males, six hundred and ten Black Africans, one hundred and twenty six Whites, twenty-eight Coloureds, and twelve Indians. The Black student population represents about seventy four percent of the total student population. The school accommodates

Grades 8 through 12. This means that the school is operating two educational systems simultaneously, one new system, the General Education and Training (GET) Band constitutive of Grades 8 and 9, and the old system, the Senior Secondary Phase constitutive of Grades 10, 11 and 12.

About 50% of the Black African students are from the adjacent ‘township’ and they travel to this school by bus and taxis. The others live in the surrounding areas previously occupied by Whites, but they attend this school because its medium of instruction is English and it is affordable, whereas the medium of instruction in other schools in the surrounding area is Afrikaans and it is more expensive (personal communication with principal). Only 2% of the White student population live in the area, the others travel to this school because of its affordability (ibid).

Each student is expected to pay four thousand rand (R4000) per annum towards school fees, which is “affordable and cheap compared to the other surrounding schools” (ibid). There is a School Representative Council that is actively engaged in matters relating to the school. The school does not have a ‘School Assessment Team’ (personal communication with teacher).

The road leading to the school is tarred. It is situated in a corner of a long street and is completely fenced. There are two entrances into the school; one is the main entrance facing the main road, while the other is a side entrance. The side entrance with a small gate is used only by the school staff to enter and leave the school. The main entrance has two gates, a large one leading into a tarred parking area and a small gate leading into the reception area. The side gate and the large main gate are locked at all times and operated by the school maintenance workers who open and close them as necessary. The small main entrance has an intercom system, and is usually operated by the school receptionist.

The building is double-storey, brick and tile, and consists of seven large blocks. The main entrance leads to the administrative building – a single, large double storey building housing the large well-furnished and attractive reception area on the ground floor, which leads on one side into the offices of the Receptionist, the

typist, the treasurer, the accounting clerk, the deputy principal and the principal, and the photocopying room. All the offices are spacious, well furnished and well resourced. On the other side the reception area leads onto a flight of stairs leading into the large school hall, a gym, offices and large staff room with a kitchen on the second floor. The heads of department occupies the offices on this floor. The staff room is not only spacious, but also adequately and well furnished, and looks very attractive, educationally and otherwise. The staff room has pigeonholes for each teacher into which documents are placed. All the windows in this building have burglar guards and draped elegantly with very attractive curtains. No windowpanes are broken. The other blocks house the twenty-two classrooms, six laboratories, one large, well-resourced library, other specialist rooms such as a hotel room and two well-equipped kitchens for home economics, a computer room with thirty-one computers, and a technology room with the latest specialised equipment. All the buildings have covered verandas. There are more than sufficient well-maintained toilets for both staff and students. The huge and well-maintained playground with tennis courts, netball courts, hockey field, soccer ground, and cricket grounds provides excellent opportunities for extra-curricular development. There are sufficient under-cover parking facilities for all staff. The area surrounding the school is either tarred or grassed, and together with the well-maintained gardens gives the school a very attractive appearance.

The school is wired and supplied with electricity, and each classroom is supplied with electricity and plug points. An intercom system provides easy access of communicating information to staff and students in every classroom. It is also fitted with an alarm system connected to an armed response facility. Security guards are hired when meetings are conducted in the afternoons after school hours. The school is conducive to teaching and learning not only because of the stable infrastructure but also because of limited noise from traffic.

Although Higgins High School operates three timetables or 'bell times' as they call them, the school starts everyday from Monday to Friday at 7:30 and ends at 14:00. Registration takes place daily. There is one set of 'bell times' for Mondays, another for Tuesdays, Thursdays and Fridays, and another for Wednesdays. The reason for this arrangement is to accommodate the assembly on Mondays and the

tests on Wednesdays. Assembly is held every Monday mornings for thirty-five minutes in the school hall. There is 'cleaning' time every afternoon before the last period except Wednesdays, when students clean their classrooms they are in at that time as well as the immediate area surrounding the classroom. On Mondays there are seven periods while on the other days there are eight periods – each period lasting forty minutes. Every Wednesday morning there is a 'test' period for one hour beginning at 7:30 and ends at 8:35, when all students write tests according to a fixed timetable prepared at the end of the year for the following year. There are two breaks every day but their times differ in accordance with the three sets of bell times.

Teachers are expected to report to school by 7:10 and leave at 15:00 depending on their extracurricular duties. Each morning begins with short staff meetings of about ten minutes, from 7: 20 in the staff room chaired by the principal.

#### **Profile of the observed Grade 8 Natural Science class**

There are 33 students in Haley's Grade 8 D Natural Science class, with an almost equal number of girls and boys. Thirty students are Black African (16 females, 14 males), two White (females) and one Coloured (male). Most of the African students, about 80% live in the surrounding townships, while the others live in suburbs away from the school. The White and Coloured students do not stay in this suburb but chose to school here both because the school fees are relatively cheaper and the medium of instruction is English. The first language of the Black African students is an African language (Hayley did not know which specific African language from the eleven official ones), while English is their third language and their proficiency in Afrikaans is limited (personal communication with the teacher). The first language of the White and Coloured students is Afrikaans, their second language English, while their African language proficiency is nil.

These students are exposed to five, 40-minute periods of Natural Science per week, of which one is a double period on Thursday afternoons, and the other four are single periods from Monday to Wednesdays; there is no science on Fridays.

During my twenty classroom observations I noticed that the students were very disciplined, and seemed to have accepted the school's discipline and rules and regulations, for example they would line up quietly outside the laboratory where their natural science lessons were conducted, before being permitted to enter. Once inside they would place their bags on the floor, greet the teacher, before taking their science books from their bags. This had been an established routine, and when they did become noisy, the teacher would stand in front of the class either with her finger over her mouth, or clapping three times – and students would respond immediately with silence. They use a science textbook titled: Natural Sciences for Grade 8: Learner's Book. 2000. The Learning Station Series by Roodt, Whitlock, Wessels, H.J. & Ray.

A laboratory has been assigned to Haley to conduct all her lessons. It is two blocks away from the administration building, and adjoins another two laboratories. It has five rows of long, fixed tables on either side (10 rows in all) that could each accommodate ten students per row (five per side) very comfortably. This means that the laboratory could accommodate fifty students with ease. Students sit on movable stools. On the side of each table is a sink and tap. The laboratory is inspiringly decorated with scientific wall charts, models, and pictures, as well as healthy growing plants. The windows all have windowpanes and burglar guards. In front there is a solid, fixed teacher's table, and a teacher's chair, a large chalkboard, duster and an overhead projector on a movable stand. There are shelves in front as well, and two dust bins. Adjoining the laboratory is a spacious 'preparation/chemical' room with shelves and lock-up cupboards. This chemical room is used to store chemicals and student work.

During my twenty observation lessons I found the laboratory to be well-organised, attractive, clean and conducive for science teaching. However, there were consistent interruptions to the lessons because of announcements made on the intercom system. Another interruption was caused by students whose teachers were absent arriving in Haley's class to be 'student-sitted'. It was a practice of the school that when a teacher was absent, the students of that teacher's class would be divided to go to other teachers' classes to be accommodated, as they could not be left unattended. There were usually about four to six students who would sit at

the back of the class doing whatever school work they chose. It was a well-coordinated process that was done in the morning; groups of students whose teachers were absent would be informed and provided with an official note about whose classroom they had to report to. The receiving teacher would sign these forms to ensure that they had reported to her/his class and also to ensure that no teacher was over burdened with too many students to ‘student-sit’.

### **Haley’s Understanding and Beliefs with Regard to the Assessment Policy**

In this section I describe Haley’s understanding and beliefs with regard to the new assessment policy. In the course of this detailed description I offer evaluative reflections on this teacher’s claims and commitments about assessment in her school and classroom contexts. I draw on the following data sources to describe and analyse Hayley’s understandings and beliefs with regard to the new assessment policy:

- Questionnaire (B1)
- Free writing schedule (B2)
- Interviews prior to classroom observations (B3)
- Interviews after classroom observations (B10)

Haley reported that she does not have a single assessment policy but “lots of documents” (B3) related to assessment:

*I don’t know which policy you are talking about because I have received lots of documents, and been to different training courses but every time we use different material.*

(B3)

She showed me her “big file” (personal communication, 19 July 2002) containing official documents that she had received. Most of these documents were either placed in her pigeon box in the school staff room or given to her at training workshops that she had attended (ibid). I provide more information on these documents in the later section of this chapter.

Her response to the questionnaire (B1) revealed that Hayley strongly agreed that the new assessment policy creates anxiety and stress amongst educators including

her self (ibid). This raises the question: How does this negative feeling affect her understanding and implementation of the policy?

In the questionnaire responses (ibid) she agreed that the policy provides the pedagogical basis for our new education and training system; one of the principal aims of the policy is to enhance the provision of education for every learner; assessment should be an integral, ongoing part of the learning process; the specific outcomes, which are grounded in the critical outcomes, will serve as the basis for assessment (but added that she does not know how as it is too difficult); learners who do not meet the criteria must receive clear explanations with an indication of areas that need further attention; focusing on formal tests as the sole method of assessment should be avoided; creates opportunity for feedback to learners to improve learning; provides a clear indication about how well every outcome in the learning programmes are being taught and learned (she added: “don’t think it is a true reflection”); informs and improves the assessment practices of educators (she added: “difficult, time-consuming”); makes it possible for results to be reported both informally and formally; it allows for the assessment of knowledge, skills, values and attitudes (but added that she does not know how to report on values and attitudes in the written school report).

She disagreed that the various specific outcomes and their assessment criteria must be available to learners (she added that these “are written in such high English that teachers don’t even know what it means. Don’t think it will help a Gr 8 learner”); the policy allows the internal assessment process to be moderated externally in accordance with specific provincial guidelines; assessment should not be used only to rank, grade, select and certificate learners; enables assessment results to be communicated clearly, accurately, timeously and meaningfully (she added: “parents do not understand what SOs mean, they want a %”); enables the reporting process to be used as a focal point of dialogue between the home and the school (she added: “Most parents not involved at this school”) (ibid).

She strongly disagreed that teachers have no problems implementing the new policy (ibid). This raises questions: What problems do teachers have with the policy? Why do they have such problems and how could it be addressed?

Haley was not sure that the policy must be viewed in relation to our larger agenda of reconstruction and development; the policy serves as a vital instrument to shape educational practice; the purpose of assessment should always be made clear to learners; the criterion-referenced approach should be used; it creates opportunity for teachers to improve teaching and learning; creates opportunity for feedback to the school, and other stakeholders about the schools performance; and has been introduced because of poor matric results (ibid).

The analysis resulting from Hayley's responses suggests points of correspondences with as well as differences from the new assessment policy (see Chapter One and Department of Education, 1998). These responses could indicate that she is aware of some of the prescriptions of the assessment policy rather than a deep understanding of the assessment policy. I probed for such deep understanding during the twelve interviews with Hayley<sup>7</sup>, which I now describe.

Her understanding of the rationale underpinning the development of a new assessment policy is given as follows:

*To vary methods used to assess learners (to give the bigger picture) not just theoretical. To give tools to assess the weaker learners, to credit learners at whatever rate that may have acquired the necessary competence (System not ready yet because as long as reports are part of our lives it won't work). To encourage life-long learning.*

(B1)

*By using only tests and exams to assess a learner you are only looking at one aspect of that learner. Each individual is more than just formative. By assessing in various ways one should get a better picture of what an individual is capable of. I think our old way of assessment did not give us a true reflection. Although theoretically it gave one a very good idea how a learner can deal with content.*

(B2)

*Well the way they want us to teach OBE we're definitely not going to be able to assess it in our old way because you do so much more activities where the learners are ...talk and chalk is not happening so much. ...what the child is capable of although I still don't know how to do that. This may sound racial but I found that everything that has happened in our country was changed because I think they doomed everything that was with apartheid.*

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<sup>7</sup> These interviews lasted from one to two hours depending on Hayley's availability.

*I think lots of other countries are doing this type of teaching...they also think they should also change.*

(B3)

Her responses to each of the three different instruments are varied but together the data suggests that Haley has a very general and broad understanding of the rationale underpinning the new assessment system. She does recognise the political motive driving the change agenda as well as ‘policy borrowing’ involved in the process. But this understanding is weakly connected to that provided in the assessment policy that clearly articulates the rationale, namely, “both the shortcomings of the current assessment policy, and the requirements of the new curriculum for grades R-9 and Adult Basic Education and Training, have made it necessary to develop a new assessment policy” (Department of Education, 1998:8, emphasis added). In fact the policy provides a lengthy criticism of the old/current<sup>8</sup> assessment policy known as *A Résumé of Instructional Programmes in Public Schools, Report 550 (97/06*; commonly referred to as NATED 550), namely, that it prescribes a complex set of rules and regulations for subject groupings and combinations, it lacks transparency and accountability, it embraces inadequate assessment practices, it encourages inappropriate use of tests and examinations contributing to high failure and drop-out rates among students, it allows for absence of meaningful feedback, and it allows for absence of support for students (ibid). Hayley reported that she did not know about NATED 550 (personal communication, July 2002).

By comparing her response to the assessment policy and to the analytical conceptual framework I would argue that she has a surface understanding of the rationale underpinning the introduction of the new policy. The evidence of this surface understanding is reflected in her response where she indicated that the old way of “tests and exams did not give a true reflection” (B2) and her reference to “OBE” further reflects that she has some idea that the new policy was responding to the old assessment system and was driven by outcomes-based education. However, she did not articulate a comprehensive understanding of the shortcomings of the of the old/current assessment policy, which is detailed in the

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<sup>8</sup> This particular policy is old compared to this new one of 1998 for GET Band (focus of this study), but it is current because it is being used in Grades 10 to 12 until the phasing in of the new FET curriculum in 2006 for Grade 10.

new policy on assessment. But she did not mention nor refer specifically to the new curriculum, Curriculum 2005. This raises questions with regard to policy change. Firstly, why does she hold a superficial understanding of the assessment policy? How did she come to this understanding? How will this surface understanding affect or influence her understandings and beliefs of the policy as well as on her assessment practice? What implications does her surface understanding have for policy change and educational change generally?

Her general understanding of the new assessment policy is:

*I do not understand everything in these documents. I have got all this information; I am not detailed so much in the sense of ideas. It is confusing.*

(B1)

*To continuously assess learners with the aid of various methods and not just with the use of tests and exams. Not to link learners to a percentage but assess them on “if a skill have been mastered or not”. Learners must get the opportunity to improve themselves. Teacher must guide learner to obtain level needed to master the skill in question.*

(B2)

*Okay I understand that we may not only use tests and exams to assess a child. So out of all these different things I ...it seems to me that we must try and find different ways of assessing that especially some children are not good in giving their views theoretically in a sense of with a ...or just studying and bringing back. I think they are trying to help us that we assess other things as well to have a bigger picture of the child and not just the left side of the brain. How much they can take in and how much they can give back but they actually think more in the sense of like when they work with their hands or how they interact in groups so that we assess all of that as well.*

(B3)

She reported that her understanding of outcomes-based assessment is:

*On a scale of 0 to 10, I will say 4.*

(B3)

Hayley admits that her understanding is superficial, limited, and confused. This response is consistent to her response in the questionnaire where she reported that the policy is not easy to understand. This begs the question: What contributed to her claimed state of ‘confusion’ and how would it impact on her assessment practice? She is aware that she must assess continuously, use a variety of assessment methods and not only tests and examinations, help students improve, and develop students holistically as required by the policy, but she did not refer to the concept ‘outcomes’ at all. She referred instead to mastering ‘skills’. This might indicate her limited understanding of the new policy, which clearly states that “assessment in OBE focuses on the achievement of clearly defined outcomes” (Department of Education, 1998: 9, emphasis added). This raises questions about her deep conceptual understandings of outcomes, outcomes-based education and outcomes-based assessment. Her partial understanding is also reflected in her silence with regard to improvement of teaching as a result of assessment. She referred to the word “theoretically” many times during the interviews (B3). To her ‘theoretical’ meant *using a textbook to give information back or studying for a test and giving the information back* (B2). She is seemingly connecting theoretical work to rote learning and written work that demands cognitive reasoning, while working with the hands, interacting orally in groups, making creative posters and projects are ‘not theoretical’ and demands less or no cognitive reasoning. Her understanding of the term ‘theoretical’ raises questions regarding its influence on her assessment practice.

Her understanding of the main goal of the assessment policy is:

*To give a better reflection on a learner’s capabilities.*

*To continuously assess a learner’s progress.*

*To maximise a learner’s potential.*

(B2)

*To use different tools. To assess the children to get a bigger picture of a child. To...I think in a way we’ve heard this a lot when we were studying to maximise someone’s potential. If you take a person there’s more than just as I said theory. So if you are covering more aspects of the*

*child in that way you can motivate him maybe as I said, maybe this person is good with his hands and then he can find out that I'm good with my hands and then he can maximise that area and you can actually at the end go and do something with his hands and make a very good life after school.*

(B3)

Hayley seems to understand the broad goals of the assessment policy, although not completely. For example she did not mention that assessment was related to serving as key element in the quality assurance system, and it introduced a shift from a system that is dominated by public examinations which are high stakes, and whose main function has been to rank, grade, select and certificate students, to a new system that informs and improves the curriculum and assessment practices of educators (Department of Education, 1998: 9-10). On this basis it could be said that she has a surface understanding, but also by her own admission. The question is why she has a surface understanding, and how it would impact on her assessment practice.

To Hayley the purpose of assessment is:

*To give a reflection of a learner's capabilities;  
To be able to assess if a learner has obtained/master a skill  
To continuously assess a learner's progress and maximise  
a learner potential.*

(B3)

The new assessment policy specifically states that the purpose of assessment to ascertain “whether learning required for the achievement of the specific outcomes is taking place” (Department of Education, 1998: 10, emphasis added). It seems that she is partially correct. It seems as if she equates outcomes to skills because throughout the interviews she constantly made reference to skills as if they meant outcomes. Compared to the assessment policy (10-11) where the purposes are well written, for example: determine whether learning required for the achievement of the specific outcomes is taking place, determine whether any difficulties are being encountered, report to parents, other role players and stakeholders on the levels of achievement during learning process, build a profile of the learner's achievement across the curriculum, provide information for the evaluation and review of the learning programmes used in the classroom, and maximise learners' access to the

knowledge, skills, attitudes and values defined in the national curriculum policy, her understanding is indeed superficial. This raises the question: Why and how will this superficial understanding influence her assessment practice?

Her understanding of critical outcomes is:

*Its that five main ones of all subjects, if I'm correct, and that's like you must be able to work in a group, you must be able, there's five big ones that overall, that's as far as I know.*

*It's more a global view, certain things the government want each student at the end of the schooling career, the critical things they want a child to be able to do or the skills they might have obtained after twelve years in school.*

(B3)

This response illustrates that Hayley has some knowledge about the critical outcomes, but by her own admission “if I’m correct”; she displays uncertainty about its meaning. This illustrates Hayley’s partial and superficial understanding of this fundamental concept underpinning the new education system and the new assessment system specifically. The policy clearly indicates: “the specific outcomes grounded in the critical outcomes will serve as a basis of assessment” (Department of Education, 1998: 11, emphasis added) and Hayley agreed to this in the questionnaire (B1). Yet she has a surface understanding of a defining concept of the new assessment policy. This begs the question: Why does she have a surface understanding of this fundamental concept and how it will influence her assessment practice?

To Hayley, specific outcomes mean:

*The skills they must have obtained while, whatever you are doing is taking place. So that's what they want us in Natural Science, the specific outcomes they want at the end of the phase. When I read them I don't understand what they actually mean. They use very, very big words.*

(B3)

Hayley again refers to skills that students must obtain. She concedes that she does not understand the concept. However she tries to use specific outcomes in her lessons, as illustrated by her reported attempt at using specific outcomes in a test:

*I gave them a paragraph and I said to them to identify the phenomena. ...I gave them a phenomena and I asked them to formulate five proper questions on the phenomena so I could assess. So that was SO1<sup>9</sup>, AC<sup>10</sup> 1 and 2.*

(B3)

She admitted that the specific outcomes:

*[For] me does not make sense. ...I know the word but not what it means. It is confusing because I don't understand the English so well.*

(B3).

As indicated earlier, assessment in OBE focuses on the achievement of clearly defined outcomes and it should provide a clear indication about how well each and every outcome is being taught and learned (Department of Education, 1998). Hayley admits that she has a superficial understanding of this fundamental concept driving the new assessment policy. This invokes the question: Why and how would that impact on her assessment practice?

Her understanding of assessment criteria is:

*The AC's are the ones elaborating on the SOs. That's what they want at the end of the day, to be able to assess underneath each of the nine SOs we've got in Natural Science. Each specific outcome has mos its assessment criteria, how you going to assess that specific outcome. I don't see any advantages at the moment. For me it is a big headache.*

(B3)

Hayley seems to be aware of the placement of the assessment criteria in relation to the specific outcomes in the curriculum policy document (see Department of Education 1997), but she does not know what it means conceptually. It is not about how to assess but "evidence that the student has achieved the specific outcomes. The criteria indicate in broad terms, the observable processes and products of learning which serve as evidence of the students' achievement" (Department of Education, 1998: 19; emphasis added). The policy adds that the

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<sup>9</sup> Meaning Specific Outcome 1 in Natural Science: Use process skills to investigate phenomena related to the Natural Sciences (Department of Education, 1997:6)

<sup>10</sup> Meaning Assessment Criteria which are statements of the sort of evidence that teachers need to look for in order to decide whether a specific outcome of aspects thereof has been achieved (13)

specific outcomes and their assessment criteria must be made available to students to inform them what is to be assessed, and that students who do not meet the criteria must receive clear explanations with clear explanations with indications of areas that need further work and must be assisted to reach the required criteria (Department of Education, 1998: 11; emphasis added). Her superficial understanding is confirmed in her response in the questionnaire (B1) where she reported that the specific outcomes and the assessment criteria are:

*[Written] in such high English that teachers don't even know what it means.*

She also reported that she could not see the connections between the specific outcomes and the assessment criteria because:

*For some of them you can but for some of them I don't.*

(B3)

Again this superficial understanding raises serious questions with regard to policy implementation, for example: What contributes to her surface understanding and what is its impact on her assessment practice?

Her understanding of the criterion-reference approach to assessment is:

*I don't know what this means. I can analyse the word and say what I think it means, but for the rest I have not heard about this before.*

(B2)

This response signals a policy implementation concern because teachers are expected to use the criterion-referenced approach to assessment because it is one of the principles underpinning the new assessment system, and students are expected to be assessed against agreed criteria (see Department of Education, 1998). The question is: Why does she not know the meaning of criterion-reference approach to assessment? How would her not knowing this essential principle underpinning the new assessment system affect her assessment practice?

To Hayley, continuous assessment means:

*To continuously assess learners on various types of activities with the use of different methods. To continuously*

*track a learner's progress, so as to identify problems early, with enough time for corrective measures. I say the whole year and their marks are not just based on one exam at the end of the year. By assessing someone the whole time with all different types of things, you get a picture of how strong the child actually is.*

(B2)

The response indicates that Hayley has an understanding of continuous assessment although she did not mention 'outcomes' to assess learning, and its role on improving teaching. The question is how does she use the continuous assessment model in her classroom? Does she use 'outcomes' as indicators of achievement? If not, what does she use?

She added that the continuous assessment should be moderated because:

*To ensure that a high standard of work is maintained. Moderation should then also be done up to standard. I just see a big problem how one would moderate internal continuous assessment, externally!*

(B3)

Her response partially correlates with the policy but it raises questions regarding external moderation of continuous assessment because the policy is explicit about internal continuous assessment marks being moderated externally. The question is: Are the continuous assessment marks that she generates moderated, by whom, how and when?

Haley's understanding of the relationship between the new assessment policy and the new National Curriculum Policy/Framework is:

*I am not sure what the National Curriculum Framework means.*

(B3)

She admits that she does not know about the national curriculum policy and its relationship to the assessment policy. Again it invokes the question: Why? Hayley is currently teaching Grade 8 Natural Science (focus of this study) which is supposed to be informed by the new national curriculum policy and the new assessment policy. The new assessment policy clearly states: "this new assessment policy for the General Education and Training Band, alongside the new national

curriculum framework, provides the pedagogic basis for our new education and training system” (Department of Education, 1998: 7; emphasis added) and “The learning programmes for each phase will serve as a basis for assessment in each of the phase” (p14). And by her own acknowledgement she has no idea of the new national curriculum framework. This raises many questions: Why does she not know? How will this limited understanding impact on her understanding of the policy and its implementation? What does it imply about the strategy in bringing about changes in teachers? Who will address Hayley’s predicament, when and how?

Some of the principles underpinning the new policy are that assessment should be “authentic, valid and sensitive to race, gender, cultural background and ability” (Department of Education, 1998: 10). Her understanding of ‘authentic assessment’ is:

*Original work used to assess.*

(B2)

Her understanding of valid assessment is:

*Assessment needs to fit with the type of activity done.*

(B2)

*Assess in such a way that I can answer to school requirements and department’s.*

(B1)

The policy requires that teachers use assessment that is “authentic” and to ensure that assessment is “valid”. But both her understandings seem superficial compared to their meanings related to assessment. How did she arrive at such understandings and what impacts will it have on her assessment practice?

Hayley understands assessment being sensitive to gender, race, cultural background and ability as:

*Take all things into consideration when assessing (which is contradictory to bias-free)*

(B2)

*You may not ask stuff that everyone will not have – like cultural background, and if I talk about something in London and I know half the people don’t even know where*

*London is, or they don't even know people who if English speaking. Then I am not culturally sensitive.*

(B3)

The analysis reveals that Hayley has a superficial understanding of this principle. Firstly, why does she think that it is contradictory to bias free? Secondly she did not respond to the 'race', 'gender' and 'ability' issue - does this imply that she does not know: Why and how will it influence her assessment practice?

A portfolio assessment according to Hayley is:

*[A] combination of different types of tasks that the learner did during the year that's all kept safe. It may never go home, usually, almost 100% of all those tasks must be done in class time, no sharing of information, may not be sent home except for projects.*

(B1)

The reason for the portfolio assessment is:

*I think a lot of schools in our country didn't work. So the Department is forcing schools to have a minimum amount of like worksheets and practicals and so forth .... To make sure there is continuous assessment ...not just tests and exams. The portfolio must usually go with a learner to a new school ... so that those teachers can see what skills the child has obtained up to this point*

(B3)

However she believes:

*At this point we're doing everything we anyway would've done plus the tasks that goes into the portfolio file. So it feels to me we're doing double work. ...but administratively that's a mess.*

(B10, emphasis in original)

Her understanding of what a portfolio is made up of cannot be disputed, but it does seem superficial because of her views that security is a priority and that students may not take it home, and that it must only be done in class. This understanding seems different to the continuous assessment model. Her understanding of the rationale behind portfolio assessment seems incomplete. She seems to be confusing the cumulative records of the students with portfolio assessment. This raises two questions: Firstly how did she come to this understanding of portfolio assessment? How will this surface understanding

influence her assessment practice? Furthermore why is she doing separate work for portfolios only? This further illustrates her superficial understanding of portfolio assessment. She displays negative feelings about the process by her response “that’s a mess” (see above). The question is: Does this negative feeling find expression in her classroom practice, and how?

With regard to ‘projects’ and ‘assignments’ Haley reported:

*I always have a problem with the word project and assignment. I don’t know what’s the difference because anything that’s done at home and where they have to go and do research by themselves feels to me as if it’s a project. But it’s also an assignment that they go and do. So I never know what to use. ...Maybe you get different assignments and a project is one of them.*

(B10, emphasis in original)

This response raises serious concerns regarding policy implementation. The policy requires “all educators should have a sound knowledge of” the different techniques, including “project work and assignments” and to use them. So in terms of the policy it seems as if ‘project work’ and ‘assignments’ are different, but Hayley has a different understanding. How will this affect her assessment practice?

As far as recording of assessment information is concerned, Haley understands:

*All assessment should be recorded to be used to make conclusions later on. Recorded on sheets in mark books (excel on computer for final product). Assessment should reflect a child’s ability to master a skill and how child has improved over time. Recording should be regular (This takes a tremendous amount of time). I don’t know in which format to record it.*

(B2, emphasis added)

She has a general understanding of the recording process as indicated in the policy. Again she refers to students’ mastery of “skills”. She is seemingly silent on values, attitudes and social development as required by the policy? (see Department of Education, 1998:12). Is she perhaps equating skills with ‘outcomes’? Her concern regarding the time demands and the format required is

noteworthy in as far as exploring how this concern is addressed in her assessment practice.

She also reported that although she does group work and assesses it she does not record it but only records what the school or department wants or what gets reported:

*I know in my head that outjie can really speak well in front of the class but no one asks me that anywhere else. So for me it's useless actually recording that.*

(B3, emphasis in original)

This response seems to illustrate both her superficial and mechanical understanding of the recording process. Why does she record only what is required by the school and the department? Does she use the marks to improve teaching and learning in the class? Secondly, it appears as if she lacks the deeper value orientations of group work in terms of the social development of students. She seemingly sees group work as a mechanical exercise and uses it because *it is one of the critical outcomes* (ibid). This may no doubt affect the way she assesses students. She reported:

*I can't write on a piece of paper all these attitudes and values. How do you mark things or assess things like that?*

(B3)

The question is: Why is she experiencing this difficulty in assessing values and attitudes, and who will address her concerns, when and how?

With regard to the reporting of assessment results, her understanding is:

*Learners always see their assessment in form of rubric mark 1-to 4 or a percentage or sometimes in words. Parents only receive a report on assessment results once a term. If problems are identified, we send a different form to parents to take note of problem and to respond (also telephonic communication).*

(B2)

This response illustrates that Hayley communicates the assessment results to the students and to parents as required by the policy, which indicates: “effective communication about learner achievement is a prerequisite for the provision of quality education” (Department of Education, 1998:12). The response also reflects that she views reporting as an opportunity to provide regular feedback to students

as an integral part of teaching and learning (ibid). However her response does not indicate whether she reports against the outcomes. The question invoked is: How does she report student achievement results?

The new understandings and beliefs that Hayley acquired as a result of the new policy:

*In the old days it was basically just worksheets. Sometimes here and there a practical and tests. So I had to change my mindset in trying to find new ways to assess. I think away from tests and exams and all sorts of other little ways to continuously assess a child and not just once or twice a year. That I must assess in different ways.*

(B3)

She is aware that she should use different methods and not only examinations and tests. However although she claims to have changed her mindset, it seems only in finding new ways to assess. This seems a technical exercise, and the rationale of why she had to assess in different ways was that it was expected of her:

*If I want to still have a job I need to change with the system.*

(B3)

Again ‘outcomes’ are not mentioned. Is this an indication of her having no or limited understanding of ‘outcomes’? How will this affect her assessment practice?

Hayley believes that the new assessment policy is not easy to understand, it does not provide clear guidelines for implementation and it does not allow for flexible implementation (B1). This response is certainly very worrying for the educational change agenda. How is a teacher expected to implement a new policy, a policy that is deeply transformed, that she does not understand? How is a teacher supposed to implement the deep policy changes without clear guidelines? The questions this invokes are: Why does she feel this way? How would this feeling affect her assessment practice? How could this feeling be addressed, by whom and when?

As far as ‘oral questions and answers’ are concerned, Hayley believes that she cannot do it:

*For me it's important that someone individually write something down because for me to assess something that's not there physically is for me a problem. It's subjective, and there is no standard, it's someone's opinion. I think there are too many stakes in the assessment for people's feelings. But in a test, worksheet or exam, your feelings can do nothing to influence you in the sense that if its right its right and if it's wrong it's wrong.*

(B3, emphasis in original)

This raises questions for the successful implementation of the new policy that requires teachers to use oral questions and answers as a formal form of assessment (see Department of Education: 12). The question is: Why can't she use this form of assessment?

She believed that her role has changed:

*My role I think they expect of me to assess lots, to use different tools because if I just stand in front of the class and talk then I can't use the different tools. Lots of paper work and forms. I spent I don't know how much time trying to figure out to make a form on which I can report these different things and I think I've had three different ones now and none of them are working for me. Ja. So again my role has changed in a way that how I plan my things in class. Like we would never have had a debate before. We would have never had so much group work before you know maybe once or twice in a year when they do experiment, maybe a bit more than once or twice but now its way more. We can discuss things. I must be more aware of what's happening in my class. Yes, if they didn't want me to assess in so many different ways, I wouldn't change my teaching so much.*

(B2)

The analysis reveals that Hayley is responding to the changes in compliance with the policy directives. But seemingly on the technical aspects of the change, such as filling in forms and increasing the number of tasks, rather than on the conceptual aspects, such as the underlying assumptions, goals, philosophy or belief, skills, and conceptions of the change. The question is why and will this impact on her assessment practice, and how?

With reference to the policy she feels:

*Confused because we have we have received so many different documents. I've got two of these thick files full of all different types of documents and things that they suggest and then they suggest it differently but I really don't know what to use anymore. So I'm really doing at this point in time what I think in my brain. I now make my own things that I use.*

(B3)

This response raises many questions: Why has she received so many documents? Why are they different? How is she expected to make sense of the documents? If she is assessing informed by only what she knows from her past experience is it compromising the expectations of the new assessment policy?

Hayley believes that with the new policy:

*It is a lot of effort. I basically take the book we are using, and then I have to sit and it usually takes me an hour or two hours just to take one topic and then try and work out, with this piece we will do it with a play, and then what am I going to assess. I must decide, I must assess the leader or I must assess the whole group on the content, or on how they perform or must I rather assess them on how long they took to prepare. Now I must think what have I already assessed previously, because maybe I have assessed the leader before the time and I have assessed this person already in three ways. It is a very administrative thing at the end of the day because you must sit and try and figure out what you have already done and what you still need to do and who you are going to assess and what you are going to use to assess them.*

(B3)

This analysis suggests Hayley spends much time and effort in planning when trying to implement the assessment policy. It also seems to suggest that more focus is placed on the 'what' of assessment, than on the 'how' and 'why' of assessment. The question is why and how will this influence her assessment practice. It also seems to suggest that while she is planning her assessment activities she does not use 'outcomes' as criteria to assess. Again the question arises: Why is the use of outcomes not articulated? She seemingly relies on the textbook only in preparing her work with no mention of the use of the policy. The question is: Why the

dependence on the text book, and does this dependence compromise the achievement of the policy goals?

She believes that the new assessment policy:

*[Is] not clear enough, I think we, lots of teachers are very negative at the moment. To be very honest, the assessment for me is a nightmare. Yes it is complex to try and assess and do the OBE as well. I am trying my best to actually assess in different ways, but there are just so many types that it's just not working, because I don't really know what they expect of me.*

(B3)

It seems clear that Hayley is struggling with making sense of the policy and implementing it. It is causing her grief. The question is how can the teacher who is so emotionally traumatised towards the policy implement the policy successfully? How could commitment and ownership towards the change be developed from this emotionally traumatised teacher?

Hayley believes that the policy influences the parents:

*Parents are affected in the way that learners need resources from different places. Needs to get there and back (eg brochures, library, interviews, etc.) and time consuming for everyone.*

(B3)

It seems as if parents are burdened with the requirements of the policy. This raises many questions: Is this the intention of the policy? What are the consequences to students who have no parent/s, or whose parent/s do/does not have the resources (time, money, physical ability and intellectual capacity) to assist?

But she believes that parents should not be involved in the assessment process:

*No, it is not working for the moment. Learners do not co-operate – sign work themselves etc. I am not using it at all.*

(B2)

*Most parents not involved at this school.*

(B1)

This response seems contrary to the policy requirement that parents should be partners in the assessment process (see Department of Education, 1998). It raises the issue of whether students know and understand the consequences of forging signatures. How does the school address this issue? Another matter of concern is why parents are not involved in the school, and how schools could encourage active parent involvement. Her response was consistent with her response to the questionnaire (B1) where she disagreed that the policy created opportunity for parents' active involvement in their children's education.

Hayley also believes:

*[T]he way the department has approached OBE with the teachers, there's lots of teachers that left teaching because of the way it was dealt with, and for me there's a very negative vibe against OBE. ...I'm usually a very positive person but it has been tough staying positive....*

(B3)

Hayley's response once again indicates negative feelings towards policy changes. The questions that emerge from this response are: How will this emotional feeling about the change process affect her implementing the new assessment policy? Who is addressing Hayley's concern? Who will support her, when and how?

She believes that for the assessment policy to be effectively understood and implemented:

*We need more and new ways of training, for example modelling new practices of assessment as it should be done in schools, not just theory in training sessions. I would like someone to actually show me again exactly what they expect of me, but now they also tell me that's not going to happen because the people don't know yet at the Department because they change what they want from us every now and then. So I think that is part of the problem, because they don't know – all of this is experimental it seems at the moment, so if they train us now on this more intensely then I think it is going to be a waste. It might change again very soon as well.*

(B3)

It seems that Hayley has little interest in understanding the rationale behind the changes, but in the practical applications of the changes. It also shows that she has

very little confidence in the department in the way they prepared teachers for the implementation of new policies. She seems uncomfortable with change. The questions this response invokes are: Why does she want to be told what to do only and not the why? How will her lack of confidence in the department and its training affect her assessment practice? How could she be encouraged and supported to cope with change?

She feels:

*OK, the good thing is I get to know the learners better but for the rest I feel confused, lost; finding another job and in ten years come back; maybe they've decided what they want and then I can go on. I hate it if I don't know exactly what someone wants from me. You know this guessing for me is a nightmare because the whole time it feels as if you not actually doing your job properly because you don't know what you actually supposed to do. It doesn't give us security; it gives us more stress that increases it seems by every month.*

(B3)

She reported that her morale as a teacher is at an all time low, that had it not been for the principal of the school, who she totally respects, she would have left the teaching profession despite the fact that she is passionate about teaching. She indicated that does not feel comfortable with the confusion residing in the education system at present (personal communication, July 2002).

This analysis again reveals her deep feelings of discontent with the new policy and education system. The question is: Does this affect her assessment practice and how?

Based on the above description and analysis I will argue firstly that most of Hayley's understandings with regard to the new assessment policy are superficial while a few are non-existent. Secondly her beliefs or attitude with regard to the new assessment policy are mostly negative. I now move on to the next section to examine her assessment practice in her classroom, and to establish whether and how these understandings and beliefs influence her assessment practice. This is the focus of the next section and the second research question.

### **Hayley's Assessment Practice in the Classroom**

In this section I describe Hayley's assessment practice in her classroom, making comparisons to the new assessment policy and to her understandings and beliefs about the policy. The description inevitably invokes questions in relation to the policy requirements (Chapter One) and the conceptual framework (Chapter Three). These questions set the stage for Chapter Eight.

To gain insights into Hayley's assessment practices I use following framework as indicated earlier:

- Questionnaire (B1)
- Interview prior to classroom observations (B3)
- Classroom observations – the fundamental and most critical data source (B4)
- Teacher Documents (B5)
- Teacher records (B6)
- Student<sup>11</sup> Notebooks (B7)
- Student Records (B8)
- Examinations – June and November (B9)

I first examine Hayley's reported assessment practice as indicated in her responses to the Questionnaire (B1) and Interviews (B3) to seek connections/disconnections of her understandings and beliefs about the policy to the assessment policy and to the kinds of changes made by her, if any.

#### Reported practice

##### Evidence from the Questionnaire (B1)

In this section I report on Hayley's responses to the questionnaire (B1) on the match between her assessment practice and the assessment policy.

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<sup>11</sup> In the South African context the term 'learner' is used to refer to students and students. I will use the term 'student/s' in this study for practical reasons.

Hayley claimed that most of her current assessment practice mirrored that required by the policy, such as: assessment offers all learners an opportunity to show what they know, understand and can do; assessment is continuous; sharing of assessment intentions with learners is routine practice, which enables learners to understand their role in the assessment process; facts, applications and higher order thinking skills are assessed; assessments are not restricted to tests only; learners are involved in assessing their own work; learners are involved in assessing the work of their peers; prompt and regular marking occurs; the outcomes of marking, along with other information, are used to adjust future teaching plans; and reporting of results is both informal, namely dialogues in class and formal, namely written reports, amongst others (B1).

However she added that there was room for improvement in her assessment practice with regard to identifying key learning outcomes so that assessments made against these can be used to help develop learning; linking achievement data to curriculum outcomes; thinking through the purpose and principles of assessment to base assessment decisions; observing, noting and recording progress against key learning outcomes and involving parents in recording comments on their children's work (ibid).

She also reported that her assessment practice does not allow learning to be matched to the needs of the learners, learners are not involved in recording comments on their work, reports do not outline strengths in all aspects of school life, and that no moderation mechanisms are in place at school, provincial level or national level with the exception of “*tests and exams only*” that is moderated by the school (ibid).

She also reported that she uses various methods, approaches, and techniques of assessment such as short tests, longer standardised tests, peer assessment, examinations, portfolios, project work, assignments, and observation sheets as required by the policy. However she did not use informal monitoring by observations, oral questions and answers, interviews, learner-self assessment, self-reporting, conferencing, and journals (ibid).

Her report indicated that she ensured that her assessment practice was accurate, fair, varied, balanced, valid, manageable, and bias-free (ibid).

Evidence from the Interview (B3)

Hayley is aware that the policy expects her:

*[To] assess in different ways and not just test and exams, to continuously assess a child and not just once or twice a year.*

(B3)

She added:

*I assess them formally in the form of tests and worksheets that I mark. I also assess them informally in my head the whole time that I'm working with them. With a worksheet I will have a memo, and like when they do group work I will have a form on which I indicate if they're co-operative in the group, are they participating; are they fulfilling their role that they have in the group.*

*I will give them a worksheet or a little test or the paper that they must comment on and they need to fill it in, it's usually by writing. For me it's difficult to orally assess people because that's just logistically a big problem.*

*But I think these other assessments like debates, the child's attitudes and values and things, for me it is very difficult*

(B3, emphasis in original)

Her account of how she records assessment results:

*I've got a mark book and I also have a file in which I keep all these marks. We use EXCEL, and what I basically record there is the worksheets, the practicals, all the continuous assessment that we do. I record that in one of two forms.*

(B3)

She stated that she used the assessment information:

*[To]be able to identify, especially after we've worked with data, what the students didn't understand, and what they understood very well. So then I will go back to things that I saw that there was a misunderstanding that there was a lot that was not understanding that. I would also use it for individually to see, like I've had a few children here that*

*just didn't understand graphs. So I could help them individually.*

(B3)

The analyses of Hayley's reports yield both continuities and discontinuities with the official assessment policy. Most of her claims suggest alignment with the policy, for example, she uses diverse methods and tools of assessment, she uses continuous assessment, she provides each learner with time and assistance to realise her/his potential, use assessment that is accurate, valid, manageable, bias free, sensitive to ability, and time-efficient, use findings to assist learners develop, record findings, and communicate assessment results clearly, accurately, timeously and meaningfully (see Department of Education, 1998). However some of her accounts are disconnected to the desired policy messages, for example, assessing only written work whereas the policy calls for the use of 'oral questions and answers', 'interviewing', 'conferencing' and 'self-reporting' – these require oral work but she is unable to implement these forms of assessment. The question is why? What is the nature of the "logistical" problem that she alluded to? More crucial and fundamental to the policy change process is her report concerning her difficulty of using outcomes in her assessment practice. I had observed this concern indirectly during the interviews when she did not mention "outcomes" as a way of assessing student achievement. This begs the question: Why is she experiencing difficulties using outcomes?

I recognised that it would be naïve to assume that what is reported is necessarily translated into practice. People are usually guided by perceptions – perceptions that they are doing things when in actual fact a deeper analysis may reveal practices contrary to perceptions. In other word they may have implicit presumptions. That is people may perceive that they are doing something without actually doing that in reality. Furthermore I also realised that people usually know more than what they explicitly say. With these cautions in mind, I supplement and complement these reported claims with classroom observations as primary data sources to establish first, whether her assessment practice moved in or away from the direction of the assessment policy as claimed above, second, whether her assessment practice corresponds (or not) to both her understanding and beliefs

about the policy, and to the policy itself, and third the kind of changes made if any. Hence I move to examine Hayley's classroom practice.

### **Evidence from the classroom observations (B4)**

In this section I attempt to examine and characterise Hayley's classroom practice in relation to the reported claims, her understandings and beliefs about the policy, the policy expectations and the kind of changes made if any, as mentioned previously. I had observed twenty lessons in Hayley's Grade 8 D Natural Science class over a period of seven continuous weeks from July to September 2002 (B4). This observed class had four Natural Science lessons per week - single lessons from Monday to Wednesdays and a double lesson on a Thursday, and none on Fridays. The duration of each lesson was forty minutes. All the observed lessons took place in the science laboratory allocated to Hayley.

#### **Lesson One (B4, 23 July 2002)**

I begin with the description and analysis of the first lesson observed as a point of departure that would be used as a reference point for future descriptions and analysis. This was a single lesson.

I arrived at the school at 08:40 and proceeded to the laboratory. The Grade 8 Natural Science lesson was scheduled to begin at 08:45. When the buzzer rang signalling the end of one lesson and the beginning of another students began moving to their next classes.

The Grade 8 D Natural Science students lined up quietly outside the laboratory awaiting the teacher's invitation to enter. I had observed this as being the routine practice in all twenty lessons. Hayley welcomed me into the room before requesting the students to enter. They entered in a disciplined manner, took their individual places, placed their bags on the floor, and stood waiting for Hayley to greet them. Hayley waited until everyone was standing in absolute silence before she greeted them, followed by my greeting them. It should be noted that I had met with the students previously informing them of the reasons for my visits, and that

they should regard me as a fellow student in the class. She then requested them to sit down which they obediently did.

The lesson began by Hayley informing the students that she had observed not all of them had completed their previous work given on Monday. She requested that those whose books that she did not mark were to leave it on the front desk for marking. She wrote the date on the board before reminding the students about the last term's SO 2<sup>12</sup> activity in the library (Note that Hayley did not state what SO2 meant, perhaps it was explained in the previous lesson). She also informed them that not all of them played all the roles in group activities as they did at the beginning of the year.

Teacher: *Some of you have not been something yet, some of you have.*

She assigned roles to different students in their groups such as 'Leader', 'Scribe', 'Timekeeper', and 'Reporter' as indicated on the handout with the heading "Group Work: Peer Assessment" that provided the job descriptions of the different group members (that is 'Leader', 'Scribe', 'Timekeeper', 'Reporter') followed by a rubric with two columns, one column was for "assessment" and the other "participation". Each column had numbers 1, 2, 3, and 4 as criteria, 1 indicated poor, 2 below average, 3 above average and 4 very good.

She recapped work they were busy with, namely 'Energy' by using the 'question and answer' method:

Teacher: *Now there is different states of energy. Lets quickly see the hands, what different types, ag, sorry, states?*

Students responded by stating "potential" and "kinetic energy". Hayley continued with 'question and answer' mode of teaching and learning, as revealed by the following transcript:

Teacher: *Ok, if I got a ball in the air and it is not moving?*

Several students raise their hands, and Hayley allows a particular student to respond:

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<sup>12</sup> Specific Outcome 2: Demonstrate an understanding of concepts and principles, and acquired knowledge in the Natural Sciences (Department of Education, 1997: 11)

Student A: *Potential*

Teacher: *Very good, and if I drop it?*

Again, several students raise their hands. Hayley asks another particular student by name.

Student B: *Kinetic*

Teacher: *Kinetic energy. Ok, now that we know, we are sure that we know now what the states of energy, ne. Ok, now we have different forms of energy, states. Names? Let's see?*

Student C: *Electrical*

Teacher: *Electrical energy.*

Student D: *Chemical*

Teacher: *Chemical energy.*

Student E: *Radiant*

Teacher: *Radiant energy. What does radiant energy mean?*

Student F: *Light energy*

The lesson continued in this question and answer mode until Hayley informed the class that she was going to give each student a picture that showed “*lots of people doing different things*”. She told them that each group would be given ten minutes to complete the questions. She reminded the ‘timekeepers’ of their roles, and if they did not have watches she would assist them. She reminded ‘reporters’:

Teacher: *Come and tell me, not in front, as you're sitting. You can just stand up and tell us what you found.*

She asked them to put their hands up if they needed help. One student wanted to know whether they must write the answers. The teacher responded that they were to write their answers on the worksheet and continue at the back of the worksheet, which they would later paste in their notebooks. She asked if there were any more questions. She requested that not only the ‘scribe’ but also each one had to write the answers on their worksheet after their discussions. She handed out the worksheet with the picture. The worksheet seemingly was a photocopy from a textbook. On the worksheet was the heading in bold “Energy and change” and below that in bold “Find the energy source NS<sup>13</sup> SO1<sup>14</sup>:AC1<sup>15</sup>; SO9<sup>16</sup>:AC1<sup>17</sup>;

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<sup>13</sup> Natural Science

LLC<sup>18</sup> SO2<sup>19</sup>:AC6<sup>20</sup>; HSS<sup>21</sup> SO4:AC1” (Note: what these abbreviations represented or meant were not given on the worksheet), and below this was the instruction: “Study the picture with a partner”. On the count of five she asked them to begin, reminding them that they had ten minutes to complete their work. As students were working, she walked around observing and helping them.

The groups worked in a disciplined fashion and displayed interest and focus in their work. The group that I focused on had problems interpreting the word ‘places’ in the first question, and linking it to the word ‘items’ in the second question. They were arguing about the correct name for the coal fireplace/heater. One said it was a “bowlah”, the others laughed at this answer. They settled for “coal heater”. They could not find the picture of the candle to match it with ‘wax’ given on the worksheet. They also had difficulty in answering the last question: “Where does the energy in the source come from? Where does it go to?” One student consulted the textbook for help. The one student instructed: *Just think where diesel and paraffin get their energy from?* Since they could not answer they called the teacher for help. The teacher asked them where petrol came from and one student answered, “coal”. This group did no writing but concentrated on discussions only. The teacher alerted the class that they had five minutes left and therefore to hurry up and complete their work. This resulted in students’ becoming noisy as they rushed to complete their work. Hayley continued to observe and help students when the buzzer rang signalling the end of the lesson. Hayley clapped her hands as a strategy to get students to be quiet and pay attention to her. She requested students to put their worksheets back in their books except those students whose books were not marked, and they left their books on the front desk as they left the classroom. Some students cleaned the laboratory before they left.

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<sup>14</sup> Specific outcome 1: Use process skills to investigate phenomena related to the Natural Sciences (Department of Education, 1997: 9)

<sup>15</sup> Assessment Criteria 1: Phenomena are identified (ibid)

<sup>16</sup> Specific outcome 9: Demonstrate an understanding of the interaction between the Natural Sciences and socio-economic development (23)

<sup>17</sup> Assessment Criteria 1: Evidence is provided of how science and technology are used in society (ibid)

<sup>18</sup> Language Literacy and Communication

<sup>19</sup> Specific outcome 2: Demonstrate an understanding of concepts and principles, and acquired knowledge in the Natural Sciences (6)

<sup>20</sup> Assessment Criteria 6:

<sup>21</sup> Human and Social Sciences

At the end of the lesson Hayley informed me that the purpose of that lesson was “to ensure students can work in groups, assess one another and to assess their abilities in groups (personal communication: 23 July 2002). She added that she did not record peer assessment exercises because the students were not as yet experienced, and that some students would not be as honest in assessing their friends as she would have liked them to be (ibid).

The analysis of this lesson reveals the following:

- The purpose of the lesson was not made explicit to the students showing disconnection to the policy.
- The purpose of the assessment was not made clear to the students. This reflects disconnections to both her reported claims and to the policy requirement. But it accords with her response to the questionnaire (B1) where she indicated that she was not sure whether the purpose of the assessment should be made clear to the students.
- There was no peer assessment done despite the instruction given by Hayley and the handout given to students to peer assess. This reflects lack of correspondence with her stated claims and the policy requirement.
- While the worksheet had SOs (specific outcomes), and ACs (assessment criteria) the teacher did not mention them at all, and neither did any student enquire about its meaning. This could reflect the lack of clearly defined outcomes being used in the lesson. While this practice is disconnected to the policy requirement it correlates with her surface understanding of the concept, and with her reports (B1 and B3) that she finds it difficult to use outcomes in her lessons.
- Most of the questions assessed facts reflecting disconnections with her reports and the assessment policy.
- Assessment of attitudes and values did not take place. This reflects a lack of correlation with the policy but in line with her reports (B3) that she finds it difficult to assess attitudes and values.
- The assessment activity seemed to be unmanageable and was not time efficient as indicated by students’ struggling with the lesson and not

completing it in the allocated time given by Hayley. This reflects inconsistency with both her reported claim and the policy.

- Hayley did not formally assess the work in terms of giving marks but merely initialled it. This could be interpreted as a form of informal assessment.
- Students working in small groups as an instructional model seemed to receive more attention without linking it to the lesson content. In other words, it seemed skills development was emphasised at the expense of knowledge development. This is consistent with her surface understanding of group work, but inconsistent with the policy requirement.

This analysis suggests first that Haley's assessment practice corresponds to her surface understanding of the policy generally; second it is weakly connected to the assessment policy and to her reported claims, third she has a superficial understanding of peer assessment in that she believes that the presence of a handout with the rubric will translate into its effective use, and fourth she has a mechanical and superficial understanding of group work because its relation to the development of values and attitudes or social development was ignored. I would argue that she went through the mechanics of the new assessment requirements without any deep change in understanding, beliefs and behaviour. The question is why? It is clear that Hayley invested a lot of effort in preparing for this lesson and students were engaged with interest and enthusiasm in the lesson. But this effort was a poor resemblance to the policy requirements and her stated claims. This invokes the following questions: Why is her assessment practice disconnected from her reported claims and from the policy? From what frame of reference is Hayley operating? Under what conditions is peer assessment as a policy recommendation possible?

I examine a lesson conducted during the double period where Hayley indicated that they were "doing practical work" (personal communication with teacher, 24 July 2002).

Lesson: Practical Work (B4, 25 July 2002)

This lesson occurred after lunch from 12:35 to 14:00. As soon as the bell rang signalling the end of the lunch break, Hayley and the students proceeded immediately to their respective classrooms.

As in the previous lessons students lined up quietly outside the classroom before being invited to enter by the teacher. Hayley first orally reviewed the previous work (done on previous Monday) based on a worksheet given to students. She had assessed this work herself and had allocated marks and recorded it in her mark sheet (I saw it). She used the ‘question and answer’ method as illustrated by the following transcript:

Teacher: *What kind of energy does a burning candle use?*

Student A: *Kinetic energy*

Teacher: *Now I want to teach you something. Next to number 1, it counts for 2 marks. This usually means that you need to name 2 things, ok, so if you only say radiant energy I can only give you 1 mark, but what do we know? Radiant energy is made up 2 types of energy? Yes?*

Student B: *Heat energy and light energy*

Teacher: *Heat energy and light energy. So radiant is not wrong, but radiant is one name for the other 2 names, ne. But if this question counts 1 mark, you could have just said radiant energy. But now it counts 2 marks, that’s why we say light energy and heat energy. You understand. Next question, which form of energy cannot travel through space?*

When this exercise was complete, she continued with the oral review of the work set on the picture completed the previous day (Wednesday). Note she did not write on the board. Students were expected to mark their own work from this review – a form of ‘self-assessment’ I would think, but I observed that only a few students were correcting their work.

Hayley requested students to close their books and continued:

Teacher: *We are going to be more precise. Every time I am going to give you something, you need to tell me two things, you must tell me who supplied the energy, or where the energy come from, and then draw arrows ... changed into what?*

She explained, using the example of a radio, that electrical energy was changed into sound and heat energy. She wrote on the board:

“Radio: electrical energy → sound energy + heat energy”.

She continued with another example of someone running and wrote on the board:

“Running: chemical potential energy → kinetic energy + sound energy + heat energy”.

Hayley informed the students that they were going to find out whether they understood their work by giving them a worksheet. She then used the overhead projector as an example to illustrate energy change in the following way:

“Electrical energy → light energy + sound energy”.

She then told them that they were going to do practical work with apparatus, namely, a torch, a lamp, a heater, a candle, an alarm clock, a kettle, a fan and a hairdryer (Hayley brought these from her home), each distributed on different benches. She requested them to “be as precise as possible” and to tell her “*the form of energy that is in it*”. She continued:

Teacher: *You let the apparatus stand as it is, then you put it on, then you see what you see and what you feel and all of it. Then you switch it off. ...and then underneath on that line you must tell me what type of energy is in the source before I switch it on. Then when I switch it on, what is going, that energy going to turn into. Ok, so you will have a word with its arrow then some kind of energy there is afterwards, ok?*

Hayley repeated the instruction as some students seemed confused. They were expected to rotate their movements as they observed the different devices provided. They rushed excitedly to do the practical work in their groups. Hayley went around observing and assisting. Some groups that I observed were working well, for example, one switched the torch on, discussed that chemical energy was changed to heat and light energy, and wrote it down, using arrows correctly. Another group using the alarm clock seemed confused. One student was discussing while one was writing without using arrows as illustrated below:

“Chemical, electrical, sound”

Some observed groups were discussing in an African language, others in Afrikaans, very few in English. Some were fooling around, for example the one group with the hairdryer and another group with the torch. Hayley seemed to be experiencing problems maintaining discipline and helping students simultaneously. Students were talking very loudly when she intervened:

Teacher: *It is very confusing if you have the, the states of energy and the forms of energy mixed up. Ok, now this exercise, when you read there at the top tells you, you must tell me the different forms of energy. Ok, so now you cannot tell me it is potential, radiant, kinetic, that is what takes place. But you must be specific. You must tell me what form of energy, which changed into which other form ok. Technically, it is a long story, for the moment we will call it mechanical energy, ok.*

(Emphasis in original)

One observed group with the lamp engaged in the following way:

Student 1: *I think a lamp has got light energy, and what else?*

Student 2: *Light energy.*

Student 1: *Ja, light energy and mechanical energy because in the book it says energy that it stores, in the battery, there is energy, which is stored so chemical, mechanical energy. In the lamp there is chemical and there is light energy. I think that is all.*

Student 3: *It is, ja.*

Student 4: *No, it is not mechanical because there is light.*

Hayley joined this group and Student 4 asked her whether it was mechanical energy, to which Student 1 responded “no”. Hayley added:

Teacher: *Why do you think it is mechanical?*

Student 3: *No she was asking.*

Student 4’s response was not audible, but Hayley nodded her head and left to another group, while this observed group wrote on their worksheet – three wrote:

“Electrical energy → mechanical energy + light energy”.

The other three wrote:

“Electrical energy → light energy + heat energy”.

The teacher reminded the students:

Teacher: *You must not just one say, and one write. You must let everyone agree, then only write.*

Another observed group of five working with the kettle was engaged in the following discussion:

Student A: *When it is standing with water inside it is potential. When it is switched on it is electrical plus heat and the first one, but there is movement inside so which means it is mechanical also because there is movement inside.*

Student B: *Which movement?*

Student A: *Do you think the water just boils like that?*

Student C: *Water has mechanical energy.*

Student A: *Oh yes, but no I didn't say that, so it is potential.*

Student D: *It is potential to electrical plus heat, here ...*

Student A: *After potential you need it converted to something ne? After potential you plus everything, electrical plus heat. Ok finished.*

Student E did not contribute to the discussion. All five wrote:

“Potential → electric + heat”.

Another observed group working with the lamp engaged in the following discussion:

Student L: *I'm just showing you this. You see those batteries ne, electrical, chemical energy because there are no wires and all those stuff. Remember the time you were at the alarm clock. You said it is chemical and electrical and then Mam said it is fine because there are wires in the alarm clock.*

Student M: *What about the battery? Because the lamp doesn't have battery.*

Student L: *No the lamp it works with wires.*

Student N: *Sure there are two batteries there, ne?*

Student L: *Ja. They have got chemicals in the inside ne. Mam said if you connect the two that should make a stream, an electrical stream, which causes light.*

Student M: *Ja*

Student L: *Electrical, chemical changed to light and heat.*

Student N: *And then?*

Student L: *That's about it, ok we're finished.*

After ensuring that all groups had completed their work the teacher requested students to switch the apparatus off and take their original individual seats. She continued:

Teacher: *I need you take a pencil in your hand. Ok, now I firstly thought that we would mark one group the others and so forth but then you cannot actually understand what you wrote yourself so I want you to mark your own work.*

She used the question and answer method to review the activities orally as follows:

Teacher: *Ok, next one, the candle, yes?*

Student X: *Wax*

Teacher: *The wax is a form of chemical energy, Ok, next?*

Student Y: *Light energy*

Teacher: *Daars sy. The chemical energy will have an arrow, after the arrow we say light energy and?*

This pattern continued until the end of the lesson and end of the day. However not all students were assessing/correcting their work. Hayley requested that they paste their worksheet in their books and informed the students that she would check their work the following Monday (note this was Thursday, and there was no Science on Fridays). She informed them that they would need their books to study for “*a little test for 15 marks next week Thursday*” which she added would be based on forms of energy covered in the previous three pages of work that they did. Hayley dismissed the class.

The analysis of these lessons (review and practical work) revealed the following:

- The purpose of the assessment was not made clear to the students, illustrating non-alignment with the policy, but aligned with her response in the questionnaire (B1) that she was ‘not sure’ whether the purpose of the assessment should be always made clear to students.
- Outcomes to be achieved in the lessons were not identified, both on the worksheets and by the teacher, illustrating a lack of correspondence with the policy, but it corresponded with Hayley’s responses to the

questionnaire (B1) and interviews (B3) that she did not understand the meanings of the outcomes because they “are written in such high English that teachers don’t even know what it means” (B1).

- Hayley had indicated that the purpose of the lessons was to find out if students understood the work on energy. However, the questions focused mainly of factual information illustrating the disconnection to the policy and her reported responses (B1, B3).
- Hayley did not assess attitudes and values, illustrating a lack of correlation with the policy, but consistent with Hayley’s response that she found assessment of attitudes and values difficult to assess (B3).
- The activities seemed unmanageable and time inefficient because students were struggling with the activities and could not complete all the activities in the allocated time, illustrating mismatch with the policy requirement and Hayley’s reported claims in the Questionnaire (B1) and interviews (B3).
- Hayley reviewed all the questions without indicating specific strengths and weaknesses, contrary to the policy requirement of identifying areas where students would need support and remedial intervention.
- Although the question and answer method was used, it was mainly teacher-centred, illustrating again a mismatch with the policy and her reported claim.
- With reference specifically to the review of worksheet of 22 July:
  - Hayley assessed the students’ work but with the aid of a marking memorandum and not against outcomes as required by the policy – illustrating a lack of correspondence with the policy, but it corresponds with Hayley’s responses to the questionnaire (B1) and interviews (B3) that she did not understand the outcomes.
  - Hayley recorded the marks in her mark sheet/book in compliance with the policy requirement
  - The purpose of the lesson was not made explicit to the students, contrary to the policy requirement.

- With reference specifically to the practical work:
  - The purpose of the lesson was provided, namely, to find out whether they understood their work in terms of forms of energy, illustrating a correspondence with the policy.
  - As she indicated her original intention was that peers should have assessed this work, but because of their writing (see above) she changed her mind to 'self-assessment'. However most observed students were not assessing or correcting their work. In fact many did not have pencils. This means that this work was not assessed by the teacher or by the students.
  - The teacher focused mainly on technical issues, such as 'electrical energy → light energy + heat energy'. Conceptual understanding of energy changes were lacking as revealed by the student discussions and the teacher's review.
  - Assessment was to follow teaching and learning as indicated by the teacher about the test to follow. This might suggest that assessment is not an integral part of the teaching-learning process as desired by the policy.

This analysis suggests first that Haley's assessment practice is weakly connected to the assessment policy and to her reported claims; second it corresponds to her superficial understanding of assessment generally and self-assessment in particular. Her reliance on worksheets and group work is evident of her surface understandings of the new assessment system. The question is why? It is clear that Hayley invested a lot of effort in preparing for these lessons, especially the practical work for which she brought all the devices such as the torch, lamp, heater, candle, alarm clock, kettle fan and hairdryer from her home. All these were also clearly set out on each bench before the lesson began. Students seemed interested and enthusiastic as well, but the lesson became too technical and mechanical. The practical lesson presented ample opportunities for both informal and formal assessment as reflected in the students' engagement given above. She could have assessed process skills of students such as observation, writing,

communicating, and values and attitude but did not. The question is: Why? What factors are constraining her efforts to fulfil the demands of the policy?

I will examine a lesson that does not involve group work but individual work.

Individual work (B4, 29 July 2002)

This lesson is different from the two above in that students worked individually. After reminding the students about the forthcoming test for the following Thursday, and writing on the board “Grade 8 Test on Thursday, Txt<sup>22</sup>. P46-49” Hayley informed the students about the significance of the work that they were about to do:

Teacher: *All of this that we did on Thursday was so that you could practice, the rest of the work you can do in your groups so that you can discuss what you think this is. So that you think something and the other teams think something else, that you can convince one another what you think.*  
*This worksheet you must do individually, remember as soon as I mark something for marks, I need you to do it yourself because otherwise I can't see if the person next to you can do it. I want to see if you understand it, as soon as you don't understand it, then you must put your hand up, because I am the only one that can help you with this. Is that clear?*  
(emphasis in original)

Hayley requested the students to sit three in a row so that they would not look into other students work. She then gave them a worksheet with the following information: Name of the school; “Natural Science: Grade 8; “Module 1: Energy and change”; “Unit 1: Focus on energy; “Topic 2: Changing and transforming energy”; “WORKSHEET – Individual”.

Hayley requested that they first paste their worksheet in an ordered fashion before proceeding with the answers. Students spent much time cutting, colouring borders borrowing scissors, colour pens, glue/pritt and pasting worksheets before commencing with the questions. The teacher took the bin around for students to

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<sup>22</sup> Textbook

place off cuts from their worksheets otherwise the teacher complained “they would mess the lab floors and sinks” (personal communication, 29 July 2002).

The teacher reminded them:

Teacher: *Remember you cannot waste time because I am taking the papers at the end of the period. Sorry, quickly look here. In questions 1.1 to 1.6 they asked you to write how the energy got used. You must write it how I have done it on the board. You must tell me what type of energy was used. You must put an arrow, and then you write for instance, light energy plus what it is. You cannot just list the different energies because then it doesn't answer what they want you to do. You may go.*

Hayley walked around and quickly intervened:

Teacher: *Sorry, Ladies and Gentlemen put your pens down. Look me in the eyes. I walked past two desks and everybody is doing the same thing.*

She wrote on the board what she had observed:

“electrical → heat → light”

(I had observed this on the previous Thursday when students were doing the activities). She continued:

Teacher: *This is wrong. It means that electrical energy becomes heat energy which becomes light, and that's wrong. Its electrical energy that is converted to lots of things, for instance, heat energy plus the next thing, plus the next thing. It is as follows:  
Electrical energy → heat + light (She wrote this on the board)*

The students continued to work individually and silently, putting their hands up when requiring assistance from the teacher. Six students (out of 33) completed their work before the time was over. They placed their work on the teacher's table and were allowed by the teacher to go to the back of the classroom to complete previous work if necessary or read from their science textbook. I did not observe what individual students were writing for fear of disturbing them and maybe compromising their responses, which seemed very important for marks.

The buzzer signalled the end of the science period. The next five minutes were for cleaning the classroom and surrounding area. The students who had completed

their work cleaned up while others were allowed to complete their work. The students left their books on the teacher's table as they left.

An analysis of this lesson reveals:

- Hayley did not use outcomes in this lesson. There were no outcomes listed in the worksheet either. This clearly reflects the lack of correspondence with the policy, but correlates with her report that she did not understand the outcomes.
- The purpose of the assessment was given although it is questionable.
- All the questions except one carrying 2 marks out of 25 marks required recall of information, reflecting inconsistency with the policy and her report.
- The questions were not manageable as was made clear from the teacher's and my observations that most of the students were confused about what the arrow symbolised. It seems they had no conceptual idea and understanding that energy was being converted from one form to another. I had observed this lack of conceptual understanding that had its roots from the beginning of the unit.

This analysis suggests first, a clear correspondence between her assessment practice and her surface understanding of the policy; second a weak correspondence between her classroom practice and the policy and her reported claims. This raises questions: Why? What conditions are necessary for the effective implementation of the policy?

I next examine the lessons during which students wrote tests.

#### Tests (B4, 01 August 2002 & B4 22 August 2002)

The test (B4, 01 August 2002; the teacher had informed them previously about the test) was written in the first lesson of the double period lesson. Hayley informed me that this test was an example of a short test. She had requested students to sit three per row before the question paper was given out to them. On the question

paper appeared the following: Name of school, “Natural Sciences: Grade 8”, Module 2: Energy and change, Unit 1: Focus on energy, Topic 1: Magic energy, Test. There were 5 questions, and below each question a space for the answer. The total marks for the test was 15 marks. The pupils wrote the test in what seemed like examination conditions with the teacher walking around the classroom. On completion of the test the teacher collected the test pages and continued with the next lesson, which was a review of the previous day’s worksheet.

The analysis of this test lesson reveals:

- Hayley did not make the purpose of the assessment clear as required by the policy. This reflects disconnections to both her reported claims and to the policy requirement. But it accords with her response to the questionnaire (B1) where she indicated that she was not sure whether the purpose of the assessment should be made clear to the students.
- The specific outcomes were not used as a basis for assessment as suggested by the policy. While this practice is disconnected to the policy requirement it correlates with her surface understanding of the concept, and with her reports (B1 and B3) that she finds it difficult to use outcomes in her lessons.
- The specific outcomes and their assessment criteria were not given to the students to inform them what were to be assessed.
- She did not use the criterion-referenced approach to assessment recommended by the policy. While this practice is disconnected to the policy requirement it correlates with her reports that she has no knowledge of this concept.
- All five questions tested facts only that encouraged rote learning contrary to the policy and her reported claims.

This analysis suggests that her assessment practice correlated with her surface understanding of the policy, as well as limited correspondence between her assessment practice and the assessment policy. The analysis raises the question: Why is there limited correspondence between her assessment practice and the assessment policy?

The other test that I observed (B4, 22 August 2002) was administered in a similar way. Hayley informed me that this was an example of a standardised test. She handed out the prepared question papers to students who were absolutely quiet and seated two to three per bench in examination conditions. She requested that they hold up their pens with their left hand until she requested them to start writing. She informed them that they had half an hour to complete the questions, before instructing: “*On your marks, get set and go!*” Two students asked for clarification regarding a question. The teacher responded:

Teacher:        *Wood is burning, tell me the energy changes.*

On the question paper appeared the name of the school, “Natural Science Grade 8, Module 2: Energy and Change, Unit 1 and 2, TEST”. It had four questions with a total of 30 marks. It also indicated the criteria that were going to be used for marking the bar graph (this was done in a previous assignment) and a rubric for the assessment of the bar graph with “SO<sub>2</sub>” written next to the rubric.

The teacher informed the students that the rubric was for information only, but they were required to answer all the questions. While they were answering the test Hayley walked around the classroom. She reminded them when they had ten minutes left. Those that had completed their test were allowed to hand in their test and continue with the assignment but not to refer to their textbook. When they had completed their test, she collected the question papers and answers and stapled them together, and requested them to continue with their assignment given previously.

The analysis of this test lesson reveals the same pattern as given above, namely:

- Hayley did not make the purpose of the assessment clear as required by the policy.
- The specific outcomes were not used as a basis for assessment suggested by the policy.
- The specific outcomes and their assessment criteria were not given to the students to inform them what were to be assessed.

- She did not use the criterion-referenced approach to assessment recommended by the policy.
- All questions tested facts only with the exception of one question carrying 4 marks out of 30; - seemingly rote learning is encouraged contrary to the policy.

This analysis also suggests first, a connection between her surface understanding of the policy and her classroom practice, second, a disconnection between her assessment practice and both her claims and the assessment policy. The question this analysis invokes is: Why is there a seemingly disconnection between Hayley's assessment practice and the new assessment policy? Under what condition will it be possible for teachers to align their assessment practice in accordance with the new official assessment policy?

I next examine a lesson when an assignment was done during class time for the portfolio.

Assignment/Portfolio (B4, 19 August 2002)

After students walked into classroom in the usual manner, Hayley informed them about the assignment:

Teacher: *This week we are going to do an assignment so that I can give you marks, so that I can assess you on this work. When I assess you, you must please remember to use your textbook. Now how we are going to do this; this assignment is totally individual, so you must not ask anyone around you. What is happening, there is a paper booklet like this again; I am going to give you. Then the instructions: I will go with all of you through the instructions, and then I am going to ask that you only sit on your own. Just make sure that you have enough space; I know that it is you and that you are doing it yourself.*

(B4, 19 August 2002; emphases added)

The students were seated individually such that only three students occupied a bench ensuring sufficient space between them so that they could work 'individually'. Hayley distributed the 9-page assignment question paper or "paper

booklet” to the students and requested that they write their name and grade on the top. She then explained the process:

Teacher: *OK, let's read the first part, where it says, specific outcomes numbers 2, 4, and 6. The one I am focussing on is only number 4. Number 2, remember, we did a whole file where at the end we had a graph. Let me explain to you how it works. Now in this assignment there is also a graph. Now when I mark this graph, I am going to look how much you got the previous time for the SO 2. Let's say for the previous time, you got a 2, you could either get a 1,2,3,4 – a 4 means it was very good, and the 1 means you still needed some help. Now if you get the graph 100% right now, then I can change the 2 you received the previous time, to a 3 or 4. OK, you must use your book; you may use your textbook. Now how this works is, I need you all to open your textbook to page 134. On page 134, quickly open your textbooks. Now this whole thing, from page 134 to page 146 is the discovery of water and what water does for us, where it comes from and the whole story about water. Now you know a lot of this but lots of this will be something new and interesting to you. Now I will read with you from number 1 on your assignment... You only really need to do my questions that I have typed for you, but then you use the information from the book to answer them.*

The students commenced working on the assignment very quietly while the teacher walked around the class offering assistance to those students who raised their hands for help, for example, Hayley clarified a question on rivers. The students needed to use the atlas to trace the source of the river, but no atlas was available. Hayley responded by requesting they pursue this particular question at home and fill in the answer the next day. The students worked in a quiet and disciplined way, only to be interrupted by intercom messages.

On the cover of the 9-page assignment question paper appeared: “Natural Science” below which appeared “Specific outcome 4 (SO4)”, below this appeared “WATER”, and a space for students to insert their names and grade, as well as a diagrammatic illustration of a tap releasing two drops of water. The name of the module, unit number, and instructions were given in the first page. In addition “Specific outcomes covered: 2, 4 and 6” (emphasis added) appeared on this page. There were nine activities that appeared in a box, and next to each activity the corresponding textbook page number, the specific outcome number and the assessment criteria were provided, for example:

**ACTIVITY – P140 (SO4: AC2, AC4, AC6, and AC7**

(Assignment, 19 August 2002, emphasis in original)

The number and complexity of questions for each activity varied. Interspersed among the activities appeared rubrics for assessment, for example:

**RUBRIC FOR ASSESSMENT – SO4: AC 5 – Practices are investigated**

1	None or one negative effect is mentioned
2	Two negative effect is mentioned
3	Three negative effect is mentioned
4	Four negative effect is mentioned

(Assignment, 19 August 2002, emphasis in original)

Space had been provided for answers to be written on the question paper.

I had observed few students and they seemed to be struggling both with reading the textbook and answering the questions. I asked ten students randomly at the end of the lesson what they understood by ‘specific outcomes (SOs)’ and ‘assessment criteria (AC)’ but they did not know what it meant. The issue is why Hayley uses these ‘SOs and ‘ACs on the worksheets? Some observed students were rewriting the questions, and when Hayley observed this she informed them not to do so. One observed student wrote “Over 1000mm” in response to the first question: “What do you notice about the pattern of rainfall as one move from east to west?” He copied this information verbatim from the textbook where the rainfall map of South Africa was given. It seemed clear that he did not understand both the question and the information in the textbook. Hayley seemed to have observed the difficulties students were experiencing because she interrupted:

Teacher: *Sorry ladies and gentlemen, we have a bit of a problem. You may not at all answer - you are all already on page number 136 answering activity, that first one. Please don't do that you are going to give me the wrong answers. You must start and read on page 134, you must read everything then when you get to the activities, then you may answer it. Okay. No one may just start with the activities, everything that's typed in that book, from page 134 till page 146 at the end, you must have read. All the things, otherwise you're going to give me the totally wrong answers for your activities. Okay? So page back; 134; that's where we start.*

(Emphasis in original)

The students continued working quietly, the odd hand going up now and again for the teacher's attention. I observed many students struggling because they did not begin to write. The teacher observed this as well and interrupted:

Teacher: *Sorry to disturb you. There's two words that I find that some of you don't know what it means. Okay, Activity on page 136; number 2; it says there "Give an approximate figure for annual rainfall in your area". Approximate means 'plus-minus'. You must tell me approximately how much. Okay. In the sense of ... like an average ... what you think. If you have to guess, estimate, when you look at your picture. How much do you think? Okay and then activity, page 137; number 3; it says there "Is there a correlation between the areas of high rainfall and high population density?" This means is there a pattern. Can you see is there... can you see something that the one influences the other one. Is there some pattern between the two? Okay, you can go on. The other one is where they talk about activity on page 137; 'the northern half and the southern half'. On that specific map they didn't tell me... they didn't show you where that equator is, where the line is. So you'll have to first go and look on the atlas where exactly is that line, to know on which side there's the most rain. Okay, you can go on.*

(Emphasis in original)

When the buzzer rang to signal the end of this lesson, the students continued to work. This was a distinct departure from their usual behaviour at the observed times when they would begin packing their work away when the buzzer rang. Hayley requested:

Teacher: *Look here, when you pass me you need to bring me your project yourself, no one else may give it to me. Okay, have a lovely day, bye-bye.*

Hayley collected each student's paper as they left the classroom.

The analysis of the lesson reveals the following findings:

- Assignment as a way of assessing students was used as required by the policy and connected to her claim.
- What students were to learn were clearly defined as required by the policy, but disconnected to her reported claim where she indicated that she is not sure (B1).
- Questions assessing knowledge and skills were incorporated in line with the policy requirement and her reported claim.

- Questions assessing higher levels of thinking such as application of knowledge, not only memorisation of information, had been incorporated illustrating the link with the policy requirement and her reported claim.
- Criteria for assessment were provided to the students (although they did not know what they meant) in keeping with the policy requirement, but disconnected to her response in the questionnaire (A1).
- While the specific outcome had been given to students (students did not know what it meant) it was not clearly defined as required by the policy. The ten observed students who I asked had no idea what it or the assessment criteria meant. This is connected to her surface understanding of the concept and her reported claim.
- While clear instructions were provided, the purpose of the assessment was not made clear illustrating a departure from the policy requirement.
- Questions assessing values and attitude were not incorporated indicating a departure from the policy requirement. But consistent with her response that she did not know how (B3).
- The questions were not manageable. Many students were experiencing problems reading and understanding both the textbook and the questions as illustrated above. This reflects a disconnection with the policy and her reported claim.

This analysis suggests mixed outcomes as far as the connection between her assessment practice and her understanding of the assessment policy, with the assessment policy and her reported claims. Some reflect that her assessment practice seem to corresponding with the policy (first five bullets above) while others seemingly lack correspondence with the policy (last four bullets). It reflects that Hayley is trying to make sense of the new demands of the policy, such as using portfolio assessment as an alternative form of assessment, and the use of outcomes and assessment criteria. This analysis raises two questions: Are teachers supported as they struggle to implement the new assessment policy? Under what conditions is it possible to satisfy the new policy requirements?

I shall next examine a project that Hayley gave to her students.

Project (B4, 23 August 2002)

The project (B4, 23 August 2002) focused on “Specific outcome 6” and had been given to students on the last day of the third term, that is, 23 August 2002 to complete during the holidays and handed in on the first day when they returned, that is, 13 September 2002. On the first page appeared “Natural Science, Specific outcome 6 (SO6) Culture vs. Water”, space for students to write their name and grade, as well as various illustrations depicting different cultures drawn by Hayley. This looked very attractive and interesting. On the reverse side the meaning of specific outcome 6 was given, as well as the instructions. It read:

“There are many fascinating myths, legends, poems and stories about water. Choose one culture of the world that you want to research ...Find out as much as you can about ...Make a poster on the A3 page provided, that will show the cultural value of water in the culture you have chosen”.

(B4, 23 August 2002)

It also had a table shown below indicating how students were to be assessed:

<b>ASSESSMENT CRITERIA FOR YOU POSTER</b>	<b>Did not attempt</b>	<b>Not yet achieved</b>	<b>Achieved with help</b>	<b>Achieved</b>	<b>Achieved with distinction</b>
General appearance, layout, neatness	0	1	2	3	4
Descriptive heading	0	1	2	3	4
Content relates to the theme	0	1	2	3	4
Content is structured and clear	0	1	2	3	4
Scientific accuracy	0	1	2	3	4
Bibliography	0	1	2	3	4
<b>TOTAL</b>					

(Project, 23 August 2002, emphasis in original)

The analysis reveals the following findings:

- Hayley used project as an alternative method of assessing students as required by the policy and consistent with her report.
- What students were to learn were clearly defined as required by the policy

- The specific outcome is used to serve as a basis for assessment in compliance with the policy.
- The specific outcome and their assessment criteria have been made available to students to inform them what is to be assessed in compliance with the policy.
- It seems to be fair, manageable and time-efficient as required by the policy.
- Questions assessing knowledge and skills were incorporated in line with the policy requirement.
- Questions assessing higher levels of thinking such as application of knowledge, not only memorisation of information, had been incorporated illustrating the link with the policy requirement.
- Questions assessing values and attitude were not incorporated indicating a departure from the policy requirement, but consistent with her report.

The analysis suggests that this assessment practice corresponds with the new assessment policy except with assessment of values and attitudes. But Hayley did report that she could not assess values and attitudes. The question is why it was not possible for Hayley to assess attitudes and values.

I provide a summary that characterises the modal patterns of the twenty observed lessons:

- Hayley prepares worksheets for students to answer in written form either in groups or individually, and she formally assesses individual work only. These worksheets are used for class work, practical work, assignment or project. She formally assesses the individual work using a prepared marking memorandum soon after it is written, followed by a review of the questions, using question and answer method, although she reads the questions from the worksheet and more often than not provides the answers as well, mainly orally. She records the marks in her mark book.
- She assesses continuously.
- She assesses informally by observation.

- A variety of methods of assessment was used such as standardised test, small test, project, portfolio assignment, and practical work.
- She made assessment an ongoing integral part of the learning process.
- She records students' marks regularly in her mark book.
- She communicated assessment results timeously, accurately and clearly.
- She provided assistance to those learners who required it either during class time or outside class time
- What students were to learn were not explicitly and clearly defined in eighteen lessons.
- Outcomes were not used in eighteen lessons. Hence progression is not linked to the achievement of specific outcomes.
- The purpose of the assessment was not made clear in seventeen lessons.
- The criterion-referenced approach to assessment was not used in most lessons.
- Most assessment activities were not manageable and time efficient.
- Assessment of attitudes and values were conspicuous by its absence.
- Most lessons were teacher-centred with the teacher standing in from asking providing the answers orally.

This analysis suggests, first, there is a relationship between her surface understanding of the policy and her assessment practice especially with regard to the concepts 'outcomes', 'criterion-reference', 'assessment criteria', the goal of assessment, and the rationale driving the new assessment system; second, her assessment practice is weakly connected to her negative feelings about the policy; third, there is some correspondence between her assessment practice and the policy, and some show lack of correspondence.

From the analysis the following questions are invoked: Why does she have a surface understanding of the assessment policy? Why, despite her negative feelings about the policy is Hayley able to comply with some of the demands made by the new assessment policy? Why are there some connections and some

disconnections between her assessment practice and the new official assessment policy?

I next examine the assessment related documents that Hayley has in her possession as evidence of her practice.

#### Evidence from documents (B5)

Hayley showed me her “large, thick file with lots of documents” (personal communication (23 July 2002). She added that she was:

*Overwhelmed by the large number of documents; I don't know which are important and which not. It's very time-consuming and before you finish with one document you receive another.*

(Personal communication, 23 July 2003)

The documents are as follows:

- ❖ “Circular Number 5/2000: National Assessment Policy as it relates to OBE and the implementation of Curriculum 2005 and Assessment in GET Grades” dated 19/01/2000 from the provincial department of education (B5, 1). She reported that she received this from the school principal. This circular claims that it “**aims to assist educators in understanding, developing and implementing assessment practices** that are appropriate for Curriculum 2005” (A5, emphasis in original). It is detailed in terms of what is expected of teachers (ibid). Hayley reported that she found it difficult to understand and that it is confusing. (personal communication, 23 July 2002). This raises the question of the manner in which information is communicated to teachers in the policy reform process.
- ❖ “Circular Number 11/1999: The Learner Profile guidelines for Grade 1 and Grade 2 learners” dated 21 March 1999 from the provincial department of education (B5, 2). She received this document at a workshop in November 1999. This document provided details of the rationale behind the learner portfolio, what it is, the process of its development and management. Hayley reported that she does not use it because it refers to Grade 1 and 2 learners. However I believe that it contains important and relevant generic information

that would be relevant to all teachers. This then raises the issue of the way information is communicated to teachers.

- ❖ “Circular Number 13/1999: Progression for Grade 1 and 2 learners” dated 25 August 1999 from the provincial department of education (B5, 3). She could not remember how she received this document, but did not refer to it because it refers to Grade 1 and 2 learners. However I believe that it contains important and relevant generic information that would be relevant to all teachers. This again raises the issue about the way information is communicated to teachers.
- ❖ “OBE Assessment for General Education and Training (Grade 1 to 9): Assessment chapter for GET Educator’s Manual”, undated from the Department of Education (B5, 4). Hayley reported that she received this in her pigeonhole but did not use it because she did not know what to do with it. This document was very comprehensive providing the rationale for the change as well as explanations of the concepts used in assessment. It also provided examples of different types of assessment. Why did Hayley not use this useful document?
- ❖ “The Concept of Expected Levels of Performance”, undated and no indication of its source (B5, 5). Hayley received it from the head of department but “I certainly don’t use it because it confuses me” (personal communication, 23 July 2002). This again raises the issue of the way documents are communicated to teachers.
- ❖ “Assessment, Recording and Reporting”, undated from the South African National Tutors Services (B5, 6). Hayley received this during one of the training courses. She read it but uses some parts of it. I believe it has useful information for teachers. Again the way information is communicated to teachers needs questioning.
- ❖ “A Rubric” dated 12 September 2002 from NUE OBE Series (B5, 7). She received this at a training workshop and finds it useful. This document had useful information and clear examples. Again the way information is communicated to teachers needs questioning.
- ❖ “Learner’s Experience Planning Form”, undated and source unknown (B5, 8). Hayley obtained this document at a training workshop but she did not use it. The document had useful information on how to assess portfolios, posters,

field trips and others. Again the way information is communicated to teachers needs to be questioned.

- ❖ “Proposed Learning Programme Design Format”, undated and source unknown (B5, 9). Hayley obtained this document from a training workshop but she did not use it because she did not know what to do with it. How teachers receive information needs serious questioning.
- ❖ “Guidelines for Outcomes-based assessment in all Grades in Foundation, Intermediate and Senior Phases implementing OBE (excluding Grade 9), dated 6 June 2002 from the provincial department of education (B5, 10). She received this from the head of department. She found this document too confusing therefore she did not use it. Again the way information is communicated to teachers needs to be questioned.
- ❖ “CASS Portfolio: Generic portfolio” undated from the provincial department of education (B5, 11). She received this from the head of department. She uses this for her Grade 12 classes only. Again the way information is communicated to teachers needs to be questioned.
- ❖ “Monitoring instruments for teachers”, undated from the Department of Education (B5, 12). Hayley could not remember where she obtained this document from but she did not use it because she did not know what to do with it. How teachers receive information needs serious questioning.
- ❖ “Cass Portfolio: Biology” November 2001 from the provincial department of education (B5, 13). She received this from the head of department and uses it in her Grade 12 Biology class. This raises issues regarding integration and coherence in respect of assessment in the system.
- ❖ “Natural Sciences: Draft Progress Maps” dated June 1999 from the Gauteng Institute of Curriculum Development (B5, 14). She received this from the head of department and finds it confusing therefore does not use it. This again raises the issue about the way information is communicated to teachers.
- ❖ “Senior Phase Policy: Natural Science” 1997 from the Department of Education (B5, 15). She received this during training, but finds the language too difficult to understand, and therefore struggling to use it. She therefore has developed negative feelings towards it. This raises serious questions for the successful implementation of both the new curriculum policy and the new assessment policy.

These fifteen documents collectively seem to provide a detailed landscape of the new assessment system, and some provide guidelines for classroom practice. The question that emerges is: Why does she not use many of these documents to support her understanding and practice of the new assessment system?

In the next section I examine Hayley’s records (B6)

Teacher Records (B6)

Lesson Plans/Preparation (B6, 1)

Hayley had a ‘thick file’ containing all her preparation for Grade 8 Natural Science for the entire year. She reported that she prepared her work for the grades she was teaching the year previously when she is informed by the school management team what grades she would be teaching (personal communication, 19 July 2002). She added that she “cannot teach without it” (ibid). At the beginning of her lesson preparation she had a table indicating the four themes which she called “module/programme organiser” in Natural Science such “Life and Living, Energy and Change, Matter and Materials and Earth and Beyond in that order to correspond with the four terms in which each theme/module was to be taught. In the next column the three title/unit/theme corresponding to each module, and in the third column were the specific outcomes in line with the title as partly illustrated below:

<b>MODULE/PROGRAMME ORGANISER</b>	<b>TITLE/UNIT/THEME</b>	<b>SPECIFIC OUTCOME</b>
<b>Module 1</b> Life and living	1. Wonders of the living world	SO4
	2. The challenge to stay alive	SO1
	3. Your health is your wealth	SO5
<b>Module 2</b> Energy and change	1. Focus on Energy	SO2
	2. Heating things up	SO3
	3. Electricity works for us	SO9

(Part of Hayley’s record, 19 July 2002)

This year plan was followed by a week plan for each term. In the week plan she had indicated activities for each day of the week.

All worksheets, practical work, assignments, projects, small test, and standardised tests for the year were prepared. The format for recording marks was also complete. Copies of the April 2002 and June 2002 question papers were also in the file. She reported that she liked to be organised but leaves spaces for any changes (personal communication with teacher, 19 July 2002).

While her lesson preparation file was impressive there were serious concerns with regard to the new assessment policy. One was the limited use of outcomes bar the odd mention in terms of its abbreviated form like SO in her plan indicated above. Second, was the manner in which she used “topic outcomes” at the beginning of each unit of work, for example, the topic outcomes for ‘knowledge’ in all the units were in the form of: “The learner should know ...”; for ‘skills’ it was in the form: “The learners will be able to ...”; and for ‘attitudes’ “The learners will appreciate and tell other people about ...” (Lesson Plan, 19 July 2002). This does not resemble ‘outcomes’ as required in the new system, but rather resembles ‘objectives’ as used in the old system. The question is why?

I next examine her mark book/file.

#### Mark book/file/Recording (B6, 2)

I describe and analyse Hayley’s mark book/file/recording system that I examined.

She reported:

*Basically all these things that I mark all the time, I record them in a mark book.*

(B3)

She has a comprehensive and well-organised recording system in the form of a file. However she complained:

*I’m trying out different ways to record marks but it is very frustrating because of different requirements from the school, the parents and the department.*

(Personal communication, 19 July 2002)

She originally started her recording process by developing an assessment form for each student indicating the nine specific outcomes with its associated assessment criteria, the date on which it was assessed, the assessment number and comments. She abandoned this approach after a month because she:

*[Found] it difficult because the specific outcomes and the assessment criteria are not always correlated and don't know what fits where.*

(Personal communication, 19 July 2002)

She then developed a template using the computer programme Excel, to record the students' marks for the first term. This first term record sheet contained seven sets of marks for each student in line with the various activities including tests completed. SO2<sup>23</sup> with marks ranging from 1 to 5 appeared in one column only. All these marks were used to compute a final mark for each student for the first term that had been reported in students' first term report card (ibid).

Hayley prepared the second term record sheet similarly using Excel. Each student had ten sets of marks made up as follows: four sets from activities, one set from a small test, one from the first term mark, one from SO1, one from the standardised test, one from SO2, and one from the June examination. All these marks were subjected to special computation mechanisms to arrive at a final mark for the second term that appeared in the second term report card (ibid).

The third term marks were similarly recorded on a form prepared by Hayley using Excel. There were two columns, one for the specific outcomes and one for individual work. Marks for specific outcome 2 and specific outcome 4 were recorded for each student in the specific outcomes column. In the individual column there were three sets of marks for worksheets, one set for a short test, one set for an assignment, and one set for a standardised test. These different sets of marks were subjected to special computational formulae to arrive at a final third term mark for each student that appeared in the third term report card (ibid).

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<sup>23</sup> Specific Outcome 2

Hayley reported that the newly appointed head of department for science had requested her to reduce these third term marks because the average was too high (personal communication with teacher, 9 September 2002). She looked visibly upset when she added:

*Too high compared to what norm I don't know. How to reduce it I don't know.*

(Personal communication, 9 September 2002)

On 11 November 2002 Hayley shared her record sheet for the fourth term with me. Each student had five sets of marks, one set transported from the first term mark (continuous assessment only) but converted to represent 20% of the total (call it A), one set transported from the second term mark (continuous assessment plus the June examination) but converted to represent 50% of the total (call it B), one set transported from the third term mark (continuous assessment) converted to represent 15% of the total (call it C), one set from the fourth term (continuous assessment) converted to represent 15% of the total marks (call it D), these four sets of marks were added (A+B+C+D) and then converted to a mark that represent 50% of the total (call it E), and one set representing the November examination converted to represent 50% of the total (call it F). E and F were added (call it G) to arrive at a total promotion mark that appeared in the final report card (personal communication with teacher, 11 November 2002).

According to Hayley this ratio is:

*[The] executive's decision. I don't know how the executive make the decision.*

(Personal communication, 11 November 2002)

But she believes:

*This is the right way to go because as long as we have matric exams as the norm.*

(Personal communication, 11 November 2002)

The analyses of these records reflect how little attention is paid to the achievement of specific outcomes.

It also reflects how complex the recording process is. Hayley complained about this complexity:

*I don't have a clue how to record it. I don't know in which format to record it, because I have tried I don't know how many different types of forms to make it easier for myself to put these things in a way that one can use, So my frustration is how do we record and what we record. In the beginning it was told 1 to 5, then it changed to 1 to 4. In the beginning 1 was good and 4 was bad, this year 4 is good and 1 is bad, now I see again on the forms there is not a 1, 2, 3 or 4, it is now a star and a line and a tick or something like that. So for me all this change all the time is making the assessments a nightmare.*

(B3)

An added concern is that the process, especially the continuous assessment process, is not moderated as indicated by Hayley:

*No one has ever from the district or provincial or national looked at any of the things I have done.*

(B3)

The importance of moderation should also be seen in the context of distrust amongst educators:

*One teacher cheated with learner assessment.*

(Personal communication with teacher, 5 August 2002)

I don't mean the technical and mechanical exercise of computation, but moderating the process of how the marks are arrived at. It should not only be a technical exercise of focusing on the ratios of continuous assessment mark and examination mark as usually happens here illustrated by Haley:

*Usually they did tell us. I don't think anybody has ever challenged the decision, you know. There are too many other things to worry about. If they say this time 40/60 percent, we use 40/60 percent.*

(Personal communication with teacher, 5 August 2002)

This raises many questions such as: Why is there a seemingly lack of transparency in the school about how the ratios are determined? Why is the teacher reluctant to find out? How could the power and influence of the matriculation examination be addressed? Why is there no 'real' (not technical computations) moderating mechanism in the school and system? Who is to

moderate, how and when? How are students affected by the lack of a moderation mechanism?

In this file Hayley also had forms titled: “GDE 450 A: Areas in which support is needed” for students who needed support. She completed this form for those students who received less than 35% (personal communication, 13 August 2002). She had to indicate in pen the date, the description of the support needed, the action taken and the outcomes of the action. The parent needs to comment on this and sign it. Hayley reported that she supports all students that need extra assistance but does not complete this form all the time because it is too time consuming (ibid). During my visits to the school I witnessed her supporting students during the breaks and after school on many occasions. The question is under what conditions could this form be completed? Does it mean that if teachers are not filling in this form then they are not supporting students who require extra help?

I now move to examine students’ records.

#### Students’ records (B7)

##### Students’ Notebooks (B7, 1)

I examined nine notebooks of students that I randomly selected. Students buy their own notebooks (personal communication, August 2002). During the observed twenty lessons every student had her/his notebook in class. Each one had been uniformly covered with a red cover containing drawings of animals designed and printed by Hayley. Each one was also covered in plastic as well.

Pasted at the beginning of eight of the nine books was a year plan indicating the work for the year provided by Hayley. Each note book had extensive notes, worksheets and handouts that were neatly pasted. The teacher had assessed every task (twelve) that had been individually done. She wrote comments like “well done” or “very good” or “good” where it was deserved. But the teacher initialled other tasks, and where she observed deviations she commented like “I miss your

plant worksheet”, or in others she commented “neat work”. Students marked some tasks in pencil. Test question papers, including the June examination and marked answer sheets were pasted at the back of the notebook.

The analysis of the students’ notebooks showed some correlation with the policy, for example, evidence of achievement was collected, this evidence was evaluated, the findings were recorded (I observed this in the teacher’s mark sheet/book), the findings were used to assist learners develop (observed that every worksheet was reviewed and corrected by students), the marks were used for continuous assessment, and the results were communicated clearly and timeously (observed marking complete within three days) to students. However it also lacked correlation with the policy for example, there was a conspicuous absence of the concept outcomes in the notebooks. This demonstrates that the specific outcomes did not serve as a basis to assess students, despite agreeing to it in the questionnaire (B1). This begs the question: Why does she not use specific outcomes in her lessons? How did the teacher assess the progress of students’ achievement? Also the purpose of the assessments was not made clear to students besides providing them with the topic and instructions. Again this begs the question why. Attitudes and values were not assessed at all. The question is why? The analysis suggests that some of her assessment practices were consistent with the policy while others were not.

I examine the students’ assignments next.

#### Assignment/Portfolio (B7, 2)

I examined nine randomly selected portfolio assignments. Each student had completed three assignments for their portfolios.

The first assignment titled “Phenomenon” was done in the first term and was very elaborate requiring students to “1. Identify 5 phenomena (*AC1 Phenomenon are identified*). 2. Choose one of the five phenomena. Formulate six questions about your phenomena (*AC2 Investigative questions are formulated*). 3. Plan how you are going to go about answering those six questions (*AC3 A plan of action is*

formulated)” (emphasis in original). Hayley had assessed this plan of action. Thereafter they were expected to “4. Collect your data needed ...execute your plan (*AC4 Data are collected*). 5. Analyse. ...Evaluate. ...Interpret ... (*AC5 Data are analysed, evaluated and interpreted*). 6. Communicate your findings on a A4 paper (*AC6 Findings are communicated*)” (emphasis in original). These instructions and six questions were clearly typed and a rubric indicating how they would be assessed was provided. The rubric indicated AC<sup>24</sup> 4, AC 5, and AC 6 with a scale ranging from 1 denoting low achievement to 4 denoting high achievement. However what the ‘AC’ meant was not given in the rubric. Hayley assessed every question against the rubric and recorded the marks.

The analysis of this assignment reveals first that Hayley used assignment or portfolio assessment as a form of assessment as required by the policy. Second she linked her assessment practice to the assessment policy by using the assessment criteria and making them available to the students. Third questions requiring the integration of knowledge, concepts and skills, and not only memorisation of information have been assessed as required by the policy. However the purpose of the assignment had not been clearly defined as required by the policy; only the instructions that informed students “You need to complete the following assignment. You will be evaluated on each of the numbered points. Each step of the assignment needs to be handed in inside a portfolio file”. Furthermore the specific outcome to be achieved had not been clearly defined except the mention of the title “phenomenon” that had been clearly defined. This is not in line with the policy. It is clear that this assignment corresponded to specific outcome 1 requiring students to “use process skills to investigate phenomena related to the Natural Sciences” (Department of Education, 1997: 9). The assessment of attitudes and values has not been assessed despite the prevailing opportunity in the assignment. The analysis therefore suggests that part of her practice is aligned with the policy while others are not. This begs the question: Why is Hayley unable to fulfil the policy requirements?

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<sup>24</sup> Assessment criteria

The second assignment focused on specific outcome two. Again it was an elaborate assignment completed in the second term. Students were expected to complete five activities, such as making comparisons, identifying variables and values, designing fair experiments and tests, measuring and recording, and drawing and interpreting graphs. Hayley had provided a rubric for the assessment of each activity using a scale of 1 denoting low achievement, to 4 denoting high achievement. Hayley had assessed each activity against the rubric and recorded the marks.

The analysis of this second assignment reveals first that Hayley used assignment or portfolio assessment as a form of assessment as required by the policy. Second, she linked her assessment practice to the assessment policy by mentioning the specific outcome supposedly to be achieved and providing a rubric indicating the criteria and making these available to the students. Third, questions requiring the integration of knowledge, concepts and skills, and not only memorisation of information have been assessed as required by the policy. However the purpose of the assignment had not been clearly defined as required by the policy. Furthermore the specific outcome to be achieved had not been clearly defined except the mention of “specific outcome 2”, indicating a lack of correspondence with the policy. It is clear that this assignment corresponded to the specific outcome requiring students to “Demonstrate an understanding of concepts and principles, and constructed knowledge in the Natural Sciences” (Department of Education, 1997: 11). The assessment of attitudes and values has not been assessed despite the prevailing opportunity in the assignment. The analysis therefore suggests that part of her practice is aligned with the policy while others are not. This begs the question: Why is Hayley unable to fulfil the policy requirements?

The third assignment had focused on specific outcome 4 that I had observed students completing in class as discussed above (see Assignment/Portfolio, B4, 19 August 2002). Hayley had assessed each of the eight activities against the rubric and recorded the marks in her mark sheet/book. The analysis revealed as stated earlier that this assessment practice corresponded in many ways to the policy, for example, assignment as a way of assessing students was used, what students were

to learn were clearly defined, questions assessing knowledge and skills were incorporated, questions assessing higher levels of thinking such as application of knowledge, not only memorisation of information, had been incorporated illustrating, criteria for assessment were provided to the students (although they did not what it meant). But there were also instances showing no correspondence with the policy, such as: the specific outcomes were not clearly defined, the purpose of the assessment was not made clear, and values and attitude were not assessed. This begs the question why.

#### Tests (B7, 3)

The nine notebooks that I had examined showed that students pasted the typed, teacher-prepared question papers with their respective answer sheets at the back of the notebook. Some were short tests (three) others were long tests (two) such as the standardised test of the first term and the June examination. The teacher marked these tests, and students had corrected answers in pencil indicating they were reviewed in class. This shows a correspondence with the policy in that assessment is made an integral part of the learning process and the achievement results are communicated clearly, timeously and meaningfully to the students. The first term question paper revealed varied types of questions such as multiple choice, short questions, long questions and graphs, as well as application of knowledge and skills illustrating compliance with the policy. But the analysis also revealed a lack of correspondence with the policy such as that the purpose of the assessment was not made clear, a lack of focus on the achievement of clearly defined outcomes, the criterion-referenced approach was not used, questions focused mainly on the memorisation of facts, specifically with the short tests. This begs the question: Why the inconsistencies with the policy?

#### Reports (B7, 4)

Hayley had reported that students received four reports for the year, one per term (personal communication, 19 July 2002). This serves to illustrate that the reporting process seems to be an integral part of teaching and learning in

compliance with the policy. I examined nine randomly collected reports from students.

### First Term Report

This two-page report card had the name of the school, and was titled “Progress Report, Term 1 2002”, with information indicating the name of the student, grade, administration number, date of birth and days absent. It had three columns, one indicating the “Learning Area”, one the “Rating” and the other “%”. Below each learning area appeared “SO” (without stating what SO stood for) with a number and what it meant, for example, below Natural Sciences there appeared three SOs, SO1, SO2 and SO3, and next to each what it meant: “SO1: Use processing skills to investigate phenomena related to the natural sciences”. The number of SOs varied per learning area. The rating for each SO varied from 1 to 5 with a box at the bottom of the report card indicating what the numbers represented: “1 - not yet developed; 2 - Needs support; 3 – Satisfactory; 4 - Exceeds expectations; 5 - Excels”. On the next page were short comments made by the Register Teacher, who signed the report. The Grade Tutor also signed it. Below this was also a notice written in bold print notifying parents of the date and time of the forthcoming parents evening.

This report is in accordance with the policy requirement such as progression is linked to the achievement of specific outcomes, comments made on the personal and social development and attendance of the student, indicates the strengths and developmental needs of students, and parents are offered the opportunity to ensure the reporting process “become the focal point for dialogue between the home and the learning site” (Department of Education, 1998: 13). However there is one concern that I have with the report and that relates to the use of the abbreviation “SO” for specific outcomes without indicating what SO represents. Do parents know what it means or is it assumed that they know? Assuming they do not know then the meaningfulness of the report is compromised hence violating one of the requirements of the reporting process in terms of effective communication about student achievement.

### Half-Year Report

The half-year or second term report was similar to the first term except for the date and specific outcomes (SO) changing in some cases, for example in Natural Science there were two SOs, SO1 and SO4, whereas in the first term there were three SOs, SO 1, So2 and SO4. My concerns are the same as for the first term report card.

### Third Term Report

I was informed that students would not receive a report card for this term as they usually did because not sufficient work was covered (personal communication with teacher, 23 August 2002). This was because of the change to the school term for this particular province that made the third term shorter than usual (ibid). The change to the third term was a response to the World Summit on Sustainable Development that was held in this province.

### Year-End Report

This report card was different from the first and second term report cards. It was a one-page report card with the name of the school, and was titled “REPORT, DECEMBER 2002”, with information indicating the name of the student, grade, administration number, date of birth and days absent. However there was no table, but two columns, one indicating the nine learning areas and the other indicating “O” or “A”, or “PA” or “NA” corresponding to the learning area. What each represented was indicated in a box, for example, “O: Outstanding; A: Achieved; PA: Partially achieved; NA: Not achieved”. There were brief “comments” made by the Register Teacher, for example in one report card the comments were: “Promoted to gr. 9 in 2003. N.A.S. in the following learning areas: MLMMS, NS, AC, LO. The date when the school was to reopen in the following year was also indicated.

The analysis presents findings that raise the following concerns. First, what is the meaning of “Outstanding”? That is, outstanding in comparison to what? How

would the parent, student or any relevant stakeholder make meaning of this? Secondly, “Achieved, Partially achieved, Not achieved” what? Again what meaning can students, parents or any relevant stakeholder make of this? Third, what is the meaning of “N. A. S” used in the report? This seems meaningless. Fourth, what is the meaning of the acronyms “MLMMS, NS, AC, LO”? Do parents, students or any relevant stakeholders know what these acronyms mean or is it assumed that they know. What if they do not know? Is the report being sensitive to the needs of parents? I would therefore argue that effective communication about learner achievement has been compromised, making this report card inconsistent with the policy. Furthermore there is no comment on the personal and social development of the student as required by the policy. Again it shows a move away from the policy. The question is why?

I shall move on to examine the examination question papers for evidence of compliance/non compliance with her understanding and beliefs of the policy, her reports on her practice; the policy and the kinds of changes made if any.

#### Examination Question Papers (B9)

Hayley had informed me that students wrote two examinations, one in June and one in November (personal communication, 19 July 2002).

#### June Examination (B9, 1)

Both Hayley and the students had copies of this question paper that was easily accessible.

The heading on the six-page question paper indicated that it was an examination, that is: Natural Science Exam”, and Hayley’s name appeared as the examiner. It was a one-hour paper and carried a total of 85 marks. The paper consisted of two sections, section A and section B. Section A consisted of one question requiring short answers, for example multiple choice, true and false, providing correct terms and choosing from a given list of alternatives. It required factual recall of information and made up 25 marks. A prepared answer sheet had been prepared

for the responses to this section. Section B had three questions, one based on a diagram, one on an experiment and one graph, each carrying 20 marks each.

November Examination (B9, 2)

Hayley was the examiner for this one-and-half hour paper that carried 120 marks. It had two sections, section A and B. Section A consisted of one question requiring short answers, for example multiple choice, true and false, providing correct terms and choosing from a given list of alternatives. It required factual recall of information and made up 40 marks. A prepared answer sheet had been prepared for the responses to this section. Section B consisted of two long questions, each carrying 40 marks.

The analysis of both question papers show compliance with the policy in that assessment was varied and balanced in terms of the different types of questions; knowledge and skills were assessed, application of knowledge was assessed and not only recall of information, and it seemed time efficient. However Hayley reported that she used marking memoranda to mark students work (ibid). She did not mention specific outcomes at all. This reveals that she did not consider the outcomes to be achieved, contrary to the policy that emphasises: “assessment in OBE focuses on the achievement of clearly defined outcomes” (Department of Education, 1998: 9). This begs the question why?

Hayley informed me that the purpose of this examination was:

*[To] prepare the schedule and final report and for promotion. The following year the teachers do not use it. Teachers do not have access to the information and no time to look at files.*

(Personal communication, 3 December 2002)

This raises the question: How could this final examination result be made use of more meaningfully?

The analysis from all the data sources, namely, questionnaire, interviews, classroom observations, teacher documents, teacher records, student notebooks,

student records, and examinations suggests, first, a relationship between her surface understanding of the policy and her assessment practice especially with regard to the concepts ‘outcomes’, ‘criterion-reference’, ‘assessment criteria’, the goal of assessment, and the rationale driving the new assessment system; second, her assessment practice is weakly connected to her negative feelings about the policy, that is despite her many negative feelings about the policy and the its requirements she is trying to implement it; third, a mismatch between her stated claims and her assessment practice; and fourth, some correspondence between her assessment practice and the new assessment policy, and some lack of correspondence between her assessment practice and the new assessment policy.

This analysis invokes the following questions: Why does she have a surface understanding of the assessment policy? Why, despite her negative feelings about the policy she is able to comply with some of the demands? Why is there a mismatch between her stated claims and her assessment practice? Why are there some connections and some disconnections between her assessment practice and the policy? I pursue these questions in Chapter Eight.

### **Summary of Chapter Six**

A summary of the key findings in this chapter are: Hayley has a surface understanding of the new assessment policy, and her beliefs or attitudes towards the new assessment policy are mostly negative, that is, she expresses negative feelings towards the policy, for example, she reported that assessing in new ways was a nightmare. Second her assessment practices show both continuities and discontinuities with the assessment policy. I explore the possible explanations for these findings in Chapter Eight.

In the next chapter I shall develop a cross-case analysis as an analytical tool to compare Dinzi’s and Hayley’s understandings and beliefs with regard to the assessment policy and Dinzi’s and Hayley’s assessment practices in the light of this new official assessment policy.

## CHAPTER SEVEN

### Cross-Case Analysis: Convergences and Divergences?

*We need to be positive<sup>1</sup>*

*I think I must resign<sup>2</sup>*

In the previous two chapters I analysed each case study separately, that is, I conducted a ‘within case analysis’. In this chapter I intend to conduct a cross-case analysis of these two teacher cases. My objective is to compare the cases systematically to see what insights each case generates in terms of each teacher’s understandings and beliefs relating to the new assessment policy, and the teachers’ assessment practice in the classroom. Through this cross-case comparison, I seek to juxtapose the two complex cases in search of patterns that illuminate the relationship between policy and practice in the context of assessment policy change.

This cross-case analysis is designed to address the three overarching research questions of the study:

- 1. What are teacher understandings and beliefs with regard to the assessment policy?**
- 2. In the context of official policy, how do teachers practice assessment in their classrooms?**
- 3. How can the continuities and discontinuities between the official assessment policy and the teachers’ assessment practice be explained?**

In this chapter I respond to the first two questions, and shall respond to the third question in the next chapter. The two previous case studies generated rich data that allowed me to provide preliminary responses to the two research questions. But this cross-case analysis will not only serve to compare these findings, but more importantly it will enable me to test my propositions about ‘deep change’ articulated in the initial chapters of this thesis.

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<sup>1</sup> Quote from part of Dinzi’s interview

<sup>2</sup> Quote from part of Hayley’s interview

**A Comparison of Personal, Professional and Contextual Factors:  
Teacher Dinzi and Teacher Hayley**

I shall compare the personal, professional and contextual differences between Dinzi and Haley. I believe that these personal, professional and contextual factors are fundamental in understanding teacher actions as they provide a backdrop to their pedagogical work and its location within the assessment policy framework. I intend to describe the significance of these factors and their differences in the next chapter.

Dinzi is a forty-year old, Black African, Xhosa-speaking, female, level one educator/teacher with fifteen years teaching experience in the same school called Delamani High School located in a Black township, while Hayley is a twenty-eight year old, White, Afrikaans speaking, female, level one educator/teacher with six years teaching experience in the same school called Higgins High School located in an urban area still inhabited mostly by Whites. Dinzi is a formally qualified teacher holding a Junior Secondary Teacher's Diploma in Science and Mathematics obtained from a college of education in the former homelands in 1977, as well as a Bachelor of Arts degree with majors in Psychology and Sociology obtained from a university in the former homeland in 1985. Hayley is also formally qualified holding a Higher Education Diploma obtained from the University of Pretoria in 1996 as well as a Bachelor of Science Degree with majors in Zoology and Physiology obtained from the same university in 1995. Dinzi has taught Grade 8 and Grade 9 Mathematics for the past fourteen years, while Hayley has taught Grade 8 Mathematics for 1 year, Grade 10 Physical Science for 2 years, and Grades 10, 11 and 12 Biology for 5 years. Both Dinzi and Hayley are currently teaching only one Grade 8 Natural Science class, although for Dinzi this is the first time that she is teaching this learning area, while for Hayley it is her second year of teaching this learning area in this grade. Dinzi currently also teaches Mathematics to three Grade 9 classes, and English to one Grade 9 class and to one Grade 10 class, and is also the class teacher of Grade 10 A. Hayley currently also teaches Biology to two Grade 10 classes, Biology to two Grade 12 classes and is the Mentor Teacher to one Grade 12 class, and is the class teacher of Grade 12 D. Dinzi teaches thirty periods per week while Hayley teaches thirty two periods per week although both enjoy ten periods of non-teaching time per week. With regard to extra-curricular activities, Dinzi is a member of the Sports, Library and

School Uniform Committee, School Development Team, School Governing Body, and School Assessment Team while Hayley is a coach and organiser for athletics and netball. As far as training for the new curriculum and new assessment policy is concerned, Dinzi has received general training in outcomes-based education, in Grade 9 Mathematics, none in Grade 8 Natural Science, and very little in assessment specifically, while Hayley has received general training in outcomes-based education, in Grade 9 Natural Science, in Natural Science but at a very general level, and very little on assessment specifically. Dinzi's Grade 8 B (observed class in this study) is constituted of fifty Black African, formally registered students (although this number was not present in all observed lessons; the number observed varied between a minimum of twenty eight to a maximum of forty two). Haley's Grade 8 D (observed class in this study) is constituted of thirty-three students of which thirty are Black African, two are White and one is Coloured. Dinzi teaches all her classes in a normal classroom that is small, under-resourced and educationally uninspiring, while Hayley teaches her classes in a science laboratory that is spacious, well resourced and educationally inspiring. Dinzi used two old and outdated science textbooks, namely, "SEP – Physical Science Std. 6" dated 1980-1985 and "General Science in Action Std. 6" dated 1984, while Hayley used a new science textbook titled Natural Sciences for Grade 8: Learner's Book. 2000. The Learning Station Series by Roodt, Whitlock, Wessels & Ray. Haley's students also use the same book while Dinzi's students have no textbooks.

The school, Delamani High School where Dinzi teaches, has forty professional staff consisting of thirty-nine Black African, and one Indian, and six non-professional staff, and one thousand and seventy three Black African students, while the school Higgins High School where Hayley teaches, has forty two professional staff consisting twenty six White, four Black Africans, four Indians, and three Coloureds, and thirteen non-professional staff, and eight hundred and seventy seven students, made up of 75% Black African, 20% Whites, 3% Indian, 2% Coloureds. Dinzi's school operates two time tables, one for Mondays to Thursdays, and another for Fridays; school begins at 08:45 from Mondays to Fridays, and ends at 14:05 from Mondays to Thursdays, but ends at 13:00 on Fridays. Hayley's school operates three time tables, one for Mondays, another for Tuesdays and Thursdays, and another one for Wednesdays; lessons begin at 07:30 and ends at 14:00 from Mondays to Fridays, and each day

starts with a ten-minute staff meeting from 07:20 to 07:30 in the staff room chaired by the principal. This information is tabulated in the following pages.

**A Table Comparing the Personal, Professional and Contextual Factors of Teacher Dinzi and Teacher Hayley**

	<b>Dinzi</b>	<b>Hayley</b>
Age	40 years	28 years
Race	Black African	White
Gender	Female	Female
Level	Level One	Level One
First language	Xhosa	Afrikaans
Qualifications	Junior Secondary Teacher's Diploma in Science and Mathematics from a college of education in Transkei, a former homeland in 1977  Bachelor of Arts specialising in Psychology and Sociology from a university in Transkei, a former homeland in 1985	Higher education Diploma from the University of Pretoria in 1996  Bachelor of Science with majors in Zoology and Physiology from the University of Pretoria in 1995
Current formal studies	Further Certificate in Outcomes-Based Education at a provincial university and funded by the provincial department of education	No
Teaching experience	15 years Grade 8 and 9 Mathematics for 14 years	6 years Grade 8 Mathematics for 1 year Grade 10 Physical Science for 2 years Grades 10, 11 and 12 Biology for 5 years
Experience in teaching Grade 8 Natural Science (New curriculum)	Nil.	1 year
Number of Grade 8 Natural Science classes presently teaching	1 (out of 4): Grade 8 B	1 (out of 6): Grade 8 D
Other Learning Areas/Subjects teaching this year	Mathematics: Grade 9 – 3 classes English: Grade 9 – 1 class English Grade 10 – 1 class	Biology: Grade 10 – 2 classes Biology: Grade 12 – 2 classes Mentor Teacher Grade 12 – 1 class
Class Teacher	Grade 10 A	Grade 12 D
Number of teaching periods per week	30	32
Number of non-teaching periods	10	10
Training in new curriculum and assessment policy (note where provided it was extremely limited)	General in outcomes-based education Grade 9 Mathematics None in Grade 8 Natural Science None on assessment	General in outcomes-based education Grade 9 Natural Science General on Natural Science Very little on assessment
Extra-curricular activities	Member of Sports, Library and School Uniform Committees, School Development Team, School Governing Body, School Assessment Team	Coach and organiser for athletics and netball
School	Township – Delamani High School with Grades 8 to 12	Urban – Higgins High School with Grades 8 to 12

	<b>Dinzi</b>	<b>Hayley</b>
Distance from home to school	9 kilometres	9 kilometres
How travel to school	Taxi	Own car
Staff composition	40 professional staff – 39 Black African, 1 Indian  6 non-professional staff	42 professional staff – 26 White, 4 Black Africans, 4 Indians, 3 Coloureds 13 non-professional
Student composition	1073 – all Black African	877 – 75% Black African, 20% Whites, 3% Indian, 2% Coloured
School building	Drab	Attractive
School time table	2 time tables in operation School begins at 08:45 from Mondays to Fridays School ends at 14:05 from Mondays to Thursdays, but at 13:00 on Fridays	3 time tables in operation School begins at 07:30 and ends at 14:00 from Mondays to Fridays
<b>Number of students in observed Grade 8 Natural Science class</b>	50 (although this number was not present in all observed lessons; between 28 and 42 observed) All Black African	33 regularly present in all observed lessons  30 Black African, 2 White, 1 Coloured
<b>Classroom where lessons observed</b>	Normal classroom that was uninspiring and unattractive	Laboratory that was very inspiring and attractive
<b>Textbook used by teacher</b>	Two outdated textbooks, namely, “SEP – Physical Science Std. 6” dated 1980-1985 and “General Science in Action Std. 6” dated 1984.	<u>Natural Sciences for Grade 8: Learner’s Book</u> . 2000. The Learning Station Series by Roodt, Whitlock, Wessels, & Ray.
<b>Textbook used by students</b>	No textbook	<u>Natural Sciences for Grade 8: Learner’s Book</u> . 2000. The Learning Station Series by Roodt, Whitlock, Wessels, & Ray

In the next section I examine, compare and contrast Dinzi's and Hayley's understandings and beliefs with regard to the new assessment policy, in response to the first research question given above.

**A Comparison of the Understandings and Beliefs with regard to the new Assessment Policy of Teacher Dinzi and Teacher Hayley**

I draw on information from the questionnaires (A1 for Dinzi; B1 for Hayley); free writing schedules (A2 for Dinzi and B2 for Hayley) and interviews (A3 for Dinzi; B3 for Hayley) to construct the comparative analysis of their understandings and beliefs with regard to the assessment policy.

I shall first examine and compare each one's responses to the Questionnaires (A1 and B1) about each one's understanding and beliefs about the policy. I first compare their understandings of the policy followed by a comparison of their beliefs about the policy.

**A Comparison of their Understandings of the Policy**

While Dinzi claimed that the assessment policy was easy to understand, it provided easy guidelines for implementation, and it allows for flexible implementation, Hayley claimed that this was not so. The question that emerges is: Why are the responses different and how would the difference influence each teacher's assessment practice?

Both Dinzi and Hayley are in full agreement that the policy makes recording of assessment data cumbersome, and that it provided a clear indication about how well every outcome in the learning programmes are being taught and learned.

Both agreed that the policy provides the pedagogical basis for our new education and training system (although Dinzi strongly agreed), that assessment should be an integral, ongoing part of the learning process (Dinzi strongly agreed), that the specific outcomes, which are grounded in the critical outcomes, will serve as the basis for assessment, that learners who do not meet the criteria must receive clear explanations with an indication of areas that need further attention, focusing on formal tests as the

sole method of assessment should be avoided (Dinzi strongly), creates opportunity for feedback to learners to improve learning, informs and improves the assessment practices of educators (Dinzi strongly), makes it possible for results to be reported both informally and formally, and it allows for the assessment of knowledge, skills, values and attitudes. These responses invoke the question: Do these statements find expression in their deep understanding of the policy and in their classroom practice?

They differed on a number of factors relating to the policy, for example, Dinzi strongly agreed that the purpose of assessment should always be made clear to the learners but Hayley was not sure; Dinzi agreed the criterion-referenced approach should be used while Hayley was not sure; Dinzi agreed the various specific outcomes and their assessment criteria must be available to learners while Hayley disagreed; Dinzi was not sure that teachers have no problems implementing the new assessment policy while Hayley disagreed; Dinzi agreed that it enables assessment results to be communicated clearly, accurately, timeously and meaningfully but Hayley disagreed; and Dinzi agreed that it allows the internal assessment process to be moderated externally in accordance with specific provincial guidelines but Hayley disagreed. These responses elicit the question: Why do they differ and how will these differences influence their deeper understanding and implementation of the policy?

The analyses resulting from the questionnaire show both similarities and differences in their understandings. The similarities are connected to the policy requirements. Where they differed, some were connected to the policy while others were disconnected, for example, Dinzi agreed that it enables assessment results to be communicated clearly, accurately, timeously and meaningfully as required by the policy but Hayley disagreed. I recognise that this research instrument on its own might possibly provide limited insight into their understandings therefore I will probe into each ones' interview to obtain the deeper insight necessary to respond adequately to the research question.

I now examine and compare Dinzi and Haley's responses to the free-writing schedules (A2 for Dinzi and B2 for Hayley) and interviews (A3 for Dinzi and B3 for Hayley) about each ones understanding about the policy.

With regard to the rationale underpinning the new assessment policy, Dinzi's understanding is as follows:

*Through assessment the students' achievement on this road to success can be measured against the expected outcomes. It therefore sees to it that students are given equal opportunities to succeed by implementing different methods of assessment in order to accommodate all the levels of abilities of students.*

(A1)

While Haley's understanding is as follows:

*To vary methods used to assess learners (to give the bigger picture) not just theoretical. To give tools to assess the weaker learners, to credit learners at whatever rate that may have acquired the necessary competence. To encourage life-long learning*

(B1)

The analysis suggests different understandings, but both Dinzi and Hayley know that they need to use different methods of assessment, and both invoke the rhetorical terms associated with the education policy agenda generally such as “students are given equal opportunities”, “all the levels of abilities”, “at whatever rate” and “lifelong learning”. But only Dinzi mentioned ‘outcomes’ which closely but partially resembles the rationale as provided by the policy, namely, “both the shortcomings of the current assessment policy, and the requirements of the new curriculum for grades R-9 and Adult Basic Education and Training, have made it necessary to develop a new assessment policy” (Department of Education, 1998: 8). I recognise that interpretations of texts will differ from person to person, depending on a variety of factors, but the issue for this study is how will this different, if not superficial understandings between the two teachers impact each ones assessment practice.

To Dinzi the goal of the assessment policy is:

*To make it possible for the learner to meet same standards in the same grade though they may be in different schools. It then accommodates learners even if they need transfer from one school to another.*

(A2)

While to Haley the goal is:

*To give a better reflection on a learner's capabilities. To continuously assess a learner's progress. To maximise a learner's potential.*

(B2)

While their responses seem different they cohere in the emphasis that each teacher places on the 'learner' but without mentioning the 'teacher'. Haley's reference to 'continuous' assessment share some resemblance with the policy that articulates that the goal of the policy is to "enhance the provision of education for each learner which is continuous, coherent and progressive, making it one of the key element in the quality assurance system. The policy introduces a shift from a system that is dominated by public examinations which are 'high stakes', and whose main function has always been to rank, grade, select and certificate learners, to a new system that informs and improves the curriculum and assessment practices of educators ..." (Department of Education, 1998: 9-10). From this analysis it is clear that both Dinzi and Haley have different understandings of the goal of the policy and understandings that seem only partially connected to that given in the policy. Why? How will this influence each ones assessment practice.

Dinzi's general understanding of the policy is as follows:

*I am not conversant about the basics. I cannot really get deep into it. I don't have deep knowledge about it as such.*

(A3)

*I understood it as the new way that was introduced by the National Department of Education; what should be done, what are the procedures to be taken, what forms of assessment the people have used. What tools and techniques and what methods should they be used, and then how much involved should a student be in the assessment.*

(A3).

But Haley's is as follows:

*I do not understand everything in these documents. I have got all this information; I am not detailed so much in the sense of ideas.*

(B1)

*To continuously assess learners with the aid of various methods and not just with the use of tests and exams. Not to link learners to a percentage but assess them on “if a skill have been mastered or not”. Learners must get the opportunity to improve themselves. Teacher must guide learner to obtain level needed to master the skill in question.*

(B2)

By their own admission both teachers concede that they do not have a deep understanding of the policy. Their understandings differ in that Dinzi knows that it is related to a “new way” generally and but she focuses more on the ‘what’ of the assessment, while Hayley on the other hand repeats ‘continuous assessment and different methods’ in most of her responses but in this specific case she adds that the new policy is moving away from examinations and tests and mentions skills that are to be mastered. However both understandings are partially connected to the assessment policy that states that the assessment practice must be compatible to OBE; focus on the achievement of clearly defined outcomes; assess continuously; use a variety of tools and methods to generate and collect evidence of achievement; evaluate evidence against outcomes; record findings; use findings to assist learners develop and improve teaching and learning and define what learners are to learn (Department of Education, 1998: 9-14).

According to Dinzi the purpose of assessment is:

*[To] make the learners to be independent, accountable and responsible citizens*

(A2)

For Hayley it is:

*To give a reflection on a learner’s capability. To be able to assess if a learner has obtained/master a skill. To continuously assess a learner’s progress and maximise a learner’s potential.*

(B2)

It is clear that their respective understandings differ from each other. Dinzi’s understanding is very general and unrelated to that given in the policy, while Haley’s partially resembles the policy that states the purpose of assessment is to determine whether learning required for the achievement of the specific outcomes is taking place; determine whether any difficulties are being encountered; report to parents,

other role players and stakeholders on the levels of achievement during learning process; build a profile of the learner's achievement across the curriculum; provide information for the evaluation and review of the learning programmes used in the classroom and maximise learners' access to the knowledge, skills, attitudes and values defined in the national curriculum policy (Department of Education, 1998: 9-10).

Dinzi's understanding of formative assessment is:

*The assessment that happens during the learning process and gives information about learner's progress thus far.*

(B2)

Haley's understanding is:

*Assessment with the use of tests and exams (tests usually based on theory/written)*

(B2)

They differ in their understandings of formative assessment as illustrated above. However Haley's understanding seems incorrect, while Dinzi's has some connections to the policy that indicates formative assessment ensures "the positive achievements of the learner may be recognised and discussed and the appropriate next steps may be planned" (Department of Education, 1998: 11).

Dinzi's understanding of critical outcomes is as follows:

*I am not sure about it.*

(A3)

While Haley's is:

*It's that five main ones of all subjects, if I'm correct, and that's like you must be able to work in a group, you must be able, there's five big ones that overall, that's as far as I know. It's more a global view, certain things the government want each student at the end of the schooling career, the critical things they want a child to be able to do or the skills they might have obtained after twelve years in school.*

(B3)

Dinzi admits that she has no understanding of critical outcomes, while Haley's response is partially linked to the policy meaning of critical outcomes, namely "the broad, generic, cross-curricular outcomes" (Department of Education, 1998: 19) and that "the specific outcomes grounded in the critical outcomes will serve as a basis for

assessment” (p.11). The questions invoked are: Why is Dinzi not sure about the meaning of critical outcomes, a fundamental concept driving not only the new assessment system but also the new system of education? How will this affect her assessment practice? How would Hayley’s partial understanding of the concept critical outcome influence her assessment practice?

Specific outcomes to Dinzi means:

*What is expected of students to know at the end of each lesson... the assessment is guided by this specific outcomes.*

(A3).

To Hayley specific outcomes mean:

*The skills they must have obtained while, whatever you are doing is taking place. So that’s what they want us in Natural Science, the specific outcomes they want at the end of the phase.*

(B3)

Their understandings differ in terms of each ones emphases, Dinzi refers to knowledge only without mentioning skills, attitudes and values, while Hayley refers to skills only without mentioning knowledge, attitudes and values. However they seem to have a general but partial understanding in terms of the policy that defines specific outcomes as that “what learners are capable of knowing and doing at the end of a learning experience. A learner’s skills, knowledge, attitudes or values may demonstrate the achievement of an outcome or a set of outcomes” (Department of Education, 1998: 21). The achievement of clearly defined outcomes makes it possible to credit learner achievement at every level, whatever pathway and whatever rate (ibid)

To Dinzi criterion-referenced approach to assessment means:

*[A] certain criteria you set when you assess the students. But now the problem with it is that the criteria will differ from one educator to another because it depends now on what you expect from the students. Our criteria will never be the same.*

(A3)

Hayley reported:

*I don't know what this means. I can analyse the word and say what I think it means, but for the rest I have not heard about this before.*

(B2)

Hayley admits that she does not know what it means. Why she does not know is crucial to explore further. Dinzi's explanation is not linked to that provided by the policy, which explains it thus: "The practice of assessing a student's performance against an agreed set of criteria. In the case of OBE the student is assessed against agreed criteria derived from the specific outcomes" (Department of Education: 1998: 19). The question is: How will this limited understanding affect their assessment practices?

Dinzi's understanding of assessment criteria is:

*What do you use to assess the students? Are you going to use question and answers or are you going to the groups themselves to assess themselves. ... I'm not sure I'm using it correctly*

(A3)

While Haley's understanding is:

*The AC's are the ones elaborating on the SOs. That's what they want at the end of the day, to be able to assess underneath each of the nine SOs we've got in Natural Science. Each specific outcome has mos its assessment criteria, how you going to assess that specific outcome.*

(B3)

It seems clear that the two teachers have different conceptual understandings of 'assessment criteria'. While Dinzi associates assessment criteria with methods of assessment, Hayley has an idea that the specific outcomes and assessment criteria are somewhat related in terms of its physical location in the curriculum policy. But both explanations are not connected to that given by the policy, that is, "evidence that the student has achieved the specific outcomes. The criteria indicate in broad terms, the observable processes and products of learning which serve as evidence of the students' achievement" (Department of Education, 1998: 19). The specific outcomes and their assessment criteria must be made available to students to inform them what is to be assessed, and that students who do not meet the criteria must receive clear

explanations with clear explanations with indications of areas that need further work and must be assisted to reach the required criteria (ibid).

Continuous assessment for Dinzi is:

*When students are assessed almost daily and this counts towards their CASS.*

(A2).

For Hayley it is:

*To continuously assess learners on various types of activities with the use of different methods. To continuously track a learner's progress, so as to identify problems early, with enough time for corrective measures. I say the whole year and their marks are not just based on one exam at the end of the year. You get a picture of how strong the child actually is.*

(B2).

It can be seen that Dinzi has a limited understanding of continuous assessment compared to Hayley whose understanding closely resembles that stated in the policy, that is: "An ongoing process that measures a learner's achievement during the course of a grade or level, providing information that is used to support a learner's development and enable improvements to be made in the learning and teaching process" (Department of Education, 1998: 19). It is the "best model to assess outcomes of learning throughout the system" (p9).

Dinzi's understanding of the relationship of the new assessment policy with the national curriculum is:

*Not very sure and not conversant with the new national curriculum.*

(A3)

Haley's understanding is:

*I am not sure what the national curriculum framework means.*

(B3)

Both Dinzi and Hayley admit that they do not know what the national curriculum is, and therefore by implication they would lack an understanding of its relationship to the new assessment policy. This relationship is clearly articulated in the assessment

policy: This new assessment policy for the General Education and Training Band, alongside the new national curriculum framework, provides the pedagogic basis for out new education and training system (Department of Education, 1998: 8). This finding invokes the questions: Why do they lack this understanding? How will this lack of understanding influence their assessment practice?

The cross-case analysis suggests first that Dinzi's understandings of the policy in most instances differ from Haley's understandings of the policy; and second that each one has her own understanding that in most cases is dissimilar to that of the policy. Based on this analysis I shall argue that both have surface understandings of the policy. Why this is the case and how this would influence their assessment practice are crucial questions to address for the policy implementation process.

#### A Comparison of their **Beliefs** of the Policy

Dinzi believes that the policy:

(A2) *[Encouraged] educators to work with the learners.*

And Hayley believes that the policy helped her:

(B2) *[Try] to find different ways in assessing learners. Plan activities in such a way to be able to assess it differently.*

The analysis suggests that both Dinzi and Hayley demonstrate positive feelings towards the policy.

While Dinzi believes that the policy:

(A2) *[Is] more learner-oriented. Learners are actively involved when you assess them.*

Hayley believes that the policy helped her:

(B2) *Give a better reflection on a learner's capability and to maximise a learner's potential.*

The analysis again shows that both Dinzi and Hayley demonstrate positive feelings towards the policy.

While Dinzi believes:

*[There] is not much demand except that what we have been doing in the past has been given new names now.*

(A2)

Hayley believes:

*[Definitely] a lot of new demands, for example, take a lot of extra time (some pupils return assignments up to 5 times after they have improved it, to be assessed again; planning, large amounts of forms to fill in (administration), A tremendous amount of planning, Setting activities in such a manner that it can be assessed in different ways, A lot of stress because instructions change, really don't know if I am on the right track or not. At this point I feel a bit lost. Documents too general and confusing (too many different ones, do not know which one to use)*

(B2)

The analysis differs from the previous ones, in that it suggests that while Dinzi is more positive towards the policy, Hayley seems less positive or maybe negative towards the policy.

Dinzi believes that parents should be involved in the assessment process (A2) but Hayley believes that parents should not be involved in the assessment process (B2). The analysis suggests again that Dinzi is more positive towards the policy while Hayley seems less positive towards the policy.

Dinzi believes:

*The standards have been elevated because you associate assignments with universities; you never thought you can give a Grade 9 child to do a project, to go do an assignment. We'd just give them home work; there was no emphasis to doing these projects and assignments.*

(A3)

But Hayley believes:

*A university still needs to know what the child is capable of and I don't know how this assessment is going to help a university to know if someone can go there.*

(B3)

The analysis shows again that Dinzi is more positive towards the policy while Hayley seems less positive towards the policy.

While Dinzi believes:

*We need to be positive; with time say in 2 years time if there are no changes again we will make it*

(A3)

Hayley believes:

*The assessment for me is a nightmare.*

(B3)

The analysis shows again that Dinzi is more positive towards the policy while Hayley seems less positive or maybe negative towards the policy.

According to Dinzi:

*The learners benefit because they know in detail the different topics the educator dealt with in class (viz. the specific outcomes)*

(A2)

But for Hayley:

*Only weak learners (theoretically) benefits from this way of assessment. Learner who is very clever gets frustrated sometimes. Parents are affected in the way that learners need resources from different places, needs to get there and back (for example, brochures, library, interviews, etc.) – time consuming for everyone.*

(B2)

The analysis shows again that Dinzi is more positive towards the policy while Hayley seems partially but less positive towards the policy.

Dinzi believes

*In a way I can use the policy in class with small factors being considered like the size of the room.*

(A2)

But to Hayley:

*Some methods from the policy I can use but some of the methods are totally ridiculous.*

(B2)

The analysis shows again Dinzi's more positive disposition towards the policy compared to Hayley who seems partially but less positively disposed towards the policy.

Dinzi does not feel empowered and confident to implement the policy (A3) while Hayley believes that the policy assists those students who can work creatively with their hands rather than 'theoretically' (B3). In this instance the analysis shows a reversal from the previous analyses in that Dinzi demonstrates a less positive view towards the policy while Hayley has a positive view towards the policy.

Dinzi believes that she is:

*[Not] very conversant and don't have a deep knowledge about the policy.*

(A3)

And Hayley believes she:

*[Does] not understand everything in these documents. I have got all this information; I am not detailed so much in the sense of ideas. It is confusing.*

(B3)

The analysis now suggests that both Dinzi and Hayley seem less positive towards the policy.

According to Dinzi, she believes that she did not receive adequate training to implement the assessment policy (A2). Hayley believes likewise, that she did not receive adequate training to implement the assessment policy (B2). It seems clear that both show less positive dispositions towards the policy.

Dinzi believes that that it is difficult to assess projects and assignments because:

*Learners don't go the extra mile to and find the information and they don't do their work.*

(A3)

And Hayley believes that it is:

*[Difficult] to assess oral work and attitudes and values.*

(B3)

Both seem to show less positive views towards the policy.

The cross-case analysis suggests first that Dinzi's beliefs about the policy in most instances differ from Haley's beliefs about the policy; second that Dinzi seem to possess more positive beliefs about the policy than Hayley; third that Dinzi has more positive beliefs about the policy than less positive or maybe negative beliefs; and fourth that Hayley seems to have more, less positive/negative beliefs about the policy than positive ones. Based on this analysis I shall argue that both have positive and less positive/negative beliefs about the policy. This invokes the questions: Why do they have less positive/negative beliefs about the policy? Will this less positive/negative belief affect their assessment practice?

The analysis from this section suggests that both teachers have different understandings from each other, and in most cases partially connected or surface understandings as I call it, and in some cases disconnected to the new assessment policy, and their beliefs with regard to the policy is both positive and negative. How these varied and fluid understandings and beliefs shape their assessment practice in the classroom is the focus of the next section.

### **A Comparison of the Classroom Practices of Dinzi and Hayley**

In this section I compare the classroom practices of Dinzi and Hayley, in response to the second research question, namely: **In the context of official policy, how do teachers practice assessment in their classrooms?** I shall draw upon the following data sources of each teacher to construct the cross-case report:

- Questionnaires (A1 for Dinzi and B1 for Hayley)
- Interviews (A3 for Dinzi and B3 for Hayley)
- Classroom observations (A4 for Dinzi and B4 for Hayley)
- Teacher documents (A5 for Dinzi and B5 for Hayley)
- Teacher records (A6 for Dinzi and B6 for Hayley)

- Student notebooks (A7 for Dinzi and B7 for Hayley)
- Other student records (A8 for Dinzi and B8 for Hayley)
- Examination question papers (A9 for Dinzi and B9 for Hayley)

#### A comparison of their reported practice

I first compare their reported claims made in the questionnaires (A1 and B1).

Both Dinzi and Hayley claimed that their assessment practice mirrored the policy requirement in terms of: assessment offers all learners an opportunity to show what they know, understand and can do; assessment helps learners understand what they can do and where they need to develop further; assessment is continuous; assessment decisions are based on pragmatic, trial-and-error grounds; facts, applications and higher order thinking skills are assessed; assessments are not restricted to tests only; learners are involved in assessing their own work; strategies are in place which reveals when pupils have difficulties or are not making progress; portfolios are built over a period of time; marking focuses on the learning intentions as the criteria for success; marking strategies help the learners understand what they have achieved and what they need to do next; the outcomes of marking, along with other information, are used to adjust future teaching plans; assessment achievement data communicated to learners clearly, accurately, timeously and meaningfully; reporting of results is both informal, namely dialogues in class and formal, namely written reports; assessment of learners' learning is reported to parents/guardians in a way which identifies achievements and what the learner needs to improve; the outcomes of assessment of learning activities provide feedback and feed forward for learners; assessment of learning information is used to evaluate teaching and for monitoring progress; progress against key learning outcomes is observed, noted and recorded and reports indicate areas that need to be developed. Dinzi makes more claims that her practice mirrors the policy than Hayley does.

Both claimed that there was room for improvement with regard to the policy in terms of: the key learning outcomes have been identified so that assessments made against these can be used to help develop learning; achievement data linked to curriculum outcomes; assessment decisions are based on thinking through the purpose and

principles of assessment; portfolios are consistently used to confirm assessment judgements; parents are involved in recording comments on their children's work and records enable reports to be written easily.

However they differed markedly in their claims of whether their assessment practice did not mirror the policy or required re-thinking. Dinzi claimed that none of her assessment practices deviated from the policy or required re-thinking while Hayley claimed that many of her assessment practices did not mirror the policy or required re-thinking such as: assessment practices are sensitive to gender; assessment practices are sensitive to abilities of learners; assessment allow learning to be matched to the needs of the learners; learners are involved in recording comments on their work and reports outline strengths in all aspects of school life.

They also differed in terms of whether their respective practices mirrored the policy or there was room for improvement, for example, while Dinzi claimed that her assessment practice mirrored the policy in terms of: informs and improves the curriculum and assessment practices; learners are provided with opportunities to reflect and talk about their learning and achievement; uses a wide range of assessment methods confidently and appropriately; assessment information is used to decide what to do next with individuals, groups or the class; the marking process includes both verbal and written feedback; progress against key learning outcomes feed forward into future planning and timing of reports allow appropriate discussion and action to take place, Hayley claimed that there was room for improvement in these aspects of the policy. Also while Hayley claimed that her assessment practice mirrored the policy, for example: sharing of assessment intentions with learners is routine practice, which enables learners to understand their role in assessment process; a holistic and best-fit approach is used; assessment informs daily and weekly planning; prompt and regular marking occurs, and use a range of recording strategies for additional records, Dinzi claimed there was room for improvement.

Both reported that they use the following methods, approaches and techniques to assess learners: tests that alone set, tests set by subject teachers, standardised external tests, peer assessment, examinations, portfolios, project work, assignments, and

observation sheets. Both also reported that they do not use conferencing and journals to assess their learners.

While Dinzi claimed that she uses all the methods except conferencing and journals, Hayley indicated that she does not use informal monitoring by observation, oral questions and answers, interviews, learner self-assessment, and self-reporting, which Dinzi claims to use.

Both claimed that they did not have the necessary knowledge and skills, and the necessary resources such as time, materials and capacity to implement the assessment policy. Both also claimed that the school organisation is not conducive to the implementation of the policy, but Hayley indicated that her school was trying.

Dinzi claimed that she changed her assessment practice by:

*Giving more types of assessment to learners and doing more group work.*

(A3)

While Hayley claimed that she changed:

*Construct learning activities in such a manner that I can assess in a variety of ways and not just by using worksheets and tests .... Developed new forms to try and record assessment in an appropriate manner. Develop assignments/projects in such a way to be able to assess each AC of each SO (this is very difficult for me).*

(B1)

The claims and reports made above illustrate that both Dinzi and Hayley use a variety of methods to assess students as required by the policy. However Hayley added that the new way of recording and designing assessments and projects were difficult.

The analysis of their claims reveals some convergence and some divergence from one another and from the assessment policy. The question is: Why the divergence and how will the divergence impacts on their assessment practice? I follow up these claims in the next section by examining their reported responses to the interviews (A3

and B3) for deeper insights to enable me to construct a more meaningful and robust comparisons of their assessment practices.

Both Dinzi and Hayley reported that they used a variety of assessment methods such as tests, peer assessment, group assessment, portfolios, projects, class work and assignments to assess their students continuously. These methods are consistent with the policy requirements. However only Dinzi reported that she also uses ‘oral assessment’ and ‘interviews’, while only Hayley reported that she uses ‘observation sheets’ to assess. Neither reported the use of ‘conferencing’ and ‘journals’ as required by the policy.

Both reported that they had changed their practice as illustrated by their responses.

Dinzi reported:

*Well I would say I have changed because I am able to assess the students randomly at any time. For example, I can assess them maybe weekly or maybe daily. It's unlike in the old time where we had to assess only by giving the children tests, ...there is a mountain of tests. Now by even giving them class work, there are some class work whereby you feel you assess this one, allocate marks to that class work or homework.*

(A3)

Hayley reported:

*[To] assess in different ways and not just test and exams, to continuously assess a child and not just once or twice a year. I assess them formally in the form of tests and worksheets that I mark. I also assess them informally in my head the whole time that I'm working with them. With a worksheet I will have a memo, and like when they do group work I will have a form on which I indicate if they're co-operative in the group, are they participating; are they fulfilling their role that they have in the group. I will give them a worksheet or a little test or the paper that they must comment on and they need to fill it in, it's usually by writing. For me it's difficult to orally assess people because that's just logistically a big problem. But I think these other assessments like debates, the child's attitudes and values and things, for me it is very difficult*

(B3)

The analyses of their reported practice suggest firstly that their assessment practices are similar in many ways to one another in that both claim to use a variety of

assessment methods, and not only tests in their classroom. This is in accordance to the policy. Secondly they also differ from one another in that Dinzi seems to be using more methods than Hayley. Third there are disconnections to the policy in terms of not using some methods such as conferencing and interviews.

As I had indicated in the earlier chapters, what is claimed and reported may not necessarily be reflected in actual practice. This is not because the claims and reports made are dishonest; on the contrary, responses are often shaped by perceptions. People often perceive that they are doing something in a certain way but a close analytical exploration may reveal something different. Furthermore Dinzi and Hayley may not have been able to adequately explicate their assessment practices during the reports. These may be revealed in realm of their actual classroom actions. Therefore I examine their real classroom actions to compare them to one another so that I may obtain a deeper insight into their assessment practice.

#### A comparison of their **observed assessment practices** in the classroom

I draw upon the classroom observation data to construct this comparison, (A4 for Dinzi and B4 for Hayley). I first compare the first lesson observed in each teacher's classroom before making further comparisons. I observed this first particular lesson in Dinzi's classroom on 24 July 2002 (A4, 24 July 2002) and in Hayley's classroom on 23 July 2002 (B4, 23 July 2002). Both lessons were single lessons.

#### First observed lesson

Hayley's students were lined up quietly outside the laboratory awaiting her invitation into the classroom. They entered in a disciplined manner, took their individual places, placed their bags on the floor, and stood waiting for Hayley to greet them. Hayley waited until everyone was standing in absolute silence before she greeted them. She then requested them to sit down which they obediently did. There were thirty-three students present, the full class enrolment.

Hayley began the lesson by informing the students of her observation that not all of them had completed their previous work. She requested that those whose books she

did not mark were to leave it on the front desk for marking. She wrote the date on the board before reminding the students about the last term's activity on specific outcome 2 done in the library. She reviewed the previous work briefly using the question and answer method illustrated below:

Teacher: *Before we can go on, there's just two things we must recap. We were busy now with energy ne. Now there are different states of energy. Yes?*

Student A: *Potential energy.*

Teacher: *And the other one?*

Student B: *Kinetic energy.*

Teacher: *Kinetic energy. Very good! Now we have different forms of energy. Let's see?*

Student C: *Electrical energy*

Teacher: *Electrical energy, and?*

This review continued to the end in this manner, after which she began the day's lesson by informing the students:

Teacher: *Some of you have not been something yet, some of you have.*

She assigned roles to different students in their groups such as 'Leader', 'Scribe', 'Timekeeper', and 'Reporter' as indicated on the handout with the heading "Group Work: Peer Assessment" that provided the job descriptions of the different group members (that is 'Leader', 'Scribe', 'Timekeeper', 'Reporter') followed by a rubric with two columns, one column was for "assessment" and the other "participation". Each column had numbers 1, 2, 3, and 4 as criteria, 1 indicated poor, 2 below average, 3 above average and 4 very good. She provided each student with a worksheet containing a picture that she said showed "*lots of people doing different things*". She told them that each group would be given ten minutes to complete the questions. She reminded the 'timekeepers' of their roles, and if they did not have watches she would assist them. She requested each one to write the answers on their worksheet after their discussions, and not only the 'scribe'. The worksheet seemingly was a photocopy from a textbook. On the worksheet was the heading in bold "Energy and

change” and below that in bold “Find the energy source NS<sup>3</sup> SO1<sup>4</sup>:AC1<sup>5</sup>; SO9<sup>6</sup>:AC1<sup>7</sup>; LLC<sup>8</sup> SO2<sup>9</sup>:AC6<sup>10</sup>; HSS<sup>11</sup> SO4:AC1” (Note: what these abbreviations represented or meant were not given on the worksheet), and below this was the instruction: “Study the picture with a partner”. On the count of five she asked them to begin, reminding them that they had ten minutes to complete their work. As students were working, she walked around observing and helping them. All groups worked in a disciplined fashion and displayed interest and focus in their work.

I focused on one particular group and observed that they seemed to be experiencing problems interpreting the word ‘places’ in the first question: “Make a list of all the places in the picture where energy is being used”. They seemed to have problems relating the word ‘places’ with the word ‘items’ in the second question: “All the items on your list get their energy from different sources ....”. They were arguing about the correct name for the coal fireplace/heater. One said it was a “bowlah”, the others laughed at this answer. They settled for “coal heater”. They could not find the picture of the candle to match it with ‘wax’ given on the worksheet and were arguing about it. They also had difficulty in answering the last question: “Where does the energy in the source come from? Where does it go to?” One student consulted the textbook for help. The one student instructed:

Student A: *Just think where diesel and paraffin get their energy from?*

Since they could not answer the question they called the teacher for help. The teacher asked them where petrol came from and one student answered, “Coal”. This group did no writing but concentrated on discussions:

Student A: *Now what’s this?*

Student B: *Paraffin*

Student C: *Primus stove*

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<sup>3</sup> Natural Science

<sup>4</sup> Specific outcome 1: Use process skills to investigate phenomena related to the Natural Sciences (Department of Education, 1997: 9)

<sup>5</sup> Assessment Criteria 1: Phenomena are identified (ibid)

<sup>6</sup> Specific outcome 9: Demonstrate an understanding of the interaction between the Natural Sciences and socio-economic development (23)

<sup>7</sup> Assessment Criteria 1: Evidence is provided of how science and technology are used in society (ibid)

<sup>8</sup> Language Literacy and Communication

<sup>9</sup> Specific outcome 2: Demonstrate an understanding of concepts and principles, and acquired knowledge in the Natural Sciences (6)

<sup>10</sup> Assessment Criteria 6:

<sup>11</sup> Human and Social Sciences

Student A: *Ja, we can just say paraffin stove*

Student D: *Where's paraffin stove?*

The teacher alerted the class that they had five minutes, and had to hurry up and complete their work. This resulted in students' becoming a bit noisy as they rushed to complete their work. Hayley continued to observe and help students when the buzzer rang signalling the end of the lesson. Hayley clapped her hands as a strategy to get students to be quiet and pay attention to her. She requested students to put their worksheets back in their books except those students whose books were not marked, and they left their books on the front desk as they left the classroom. Some students cleaned the laboratory before they left.

At the end of the lesson Hayley informed me that the purpose of that lesson was "to ensure students can work in groups, assess one another and to assess their abilities in groups (personal communication: 23 July 2002). She added that she did not record peer assessment exercises because the students were not as yet experienced, and that some students would not be as honest in assessing their friends as she would have liked them to be (ibid).

In Dinzi's case, Dinzi and I walked into a very noisy, dusty and dirty classroom. Students were constantly walking into and out of this classroom. Many students were outside this classroom adding to the noise. The dusty desks were haphazardly arranged, some were in rows, others joined for group work. Amidst all this noise, and seeming chaos, some students were standing up to greet us, others were seated, and others were moving into and out of the classroom. After greeting the students she requested one student to distribute the worksheet to the students. The worksheet seemed to be a photocopy of a page from a textbook. At the top of the worksheet was a heading: "Programme Organiser: Matter and Materials", below which appeared "Sub-programme Organiser: Properties and Uses of Materials", and below this appeared: "Unit 13: Material Literacy". Dinzi asked questions (I found it difficult to hear the questions clearly because of the noise, and the audio-tape could not be transcribed because of the noise from the class and outside the class) to elicit responses from the student, many of who seemed to be inattentive to the lesson. Many were talking with one another; some were looking out the window. Two were sucking

lollipops, another three were eating potato crisps, and three were chewing gum openly in the classroom. Dinzi seemed to be competing with the noise from both inside the classroom and outside the classroom. The noise made it almost impossible to hear Dinzi until she shouted: “Shut up!” After ten minutes, a student casually walked into the classroom and seated himself. I counted thirty-eight students present in the class from an official enrolment of fifty. Dinzi requested students to refer to the worksheet that they had just received. She read the four questions aloud to the noisy class and requested that they work in pairs. They did not work in pairs but in groups of varying size depending on their choice and used this time as an opportunity to continue making noise. The observed group of six students seemed to be having difficulty in understanding what had been expected of them. They were concentrating on the box containing the objectives of the lesson, namely: “In this unit you should be able to: revise the concepts mass and volume. Investigate the phenomenon density. ....” They were trying to read it aloud but were struggling with what seemed to be a language problem. Only four students had their notebooks in class. Dinzi walked around the classroom but seemed not to focus on whether students were answering the questions or not. When she returned to the front of the classroom, she read the second question aloud:

Teacher: *What is volume and in what unit is it measured?*

She also provided the answer orally. She had repeated the third question in a similar manner and provided the answer orally. Most of the students were not writing. They appeared to be confused but Dinzi continued in the same mode, which is reading the question and providing the answer orally. She did not write anything on the board. When the buzzer rang signalling the end of the period, Dinzi requested students to paste their worksheet in their notebooks as their homework exercise.

Both teachers used worksheets and group work as pedagogical practices in their classrooms. Haley’s classroom was characterised by strict discipline while Dinzi’s classroom was not. The question is: Why and how would this affect the assessment practice of each teacher? It seems that only Hayley used the information from the previous assessment to guide teaching and learning, and she also mentioned specific outcomes, also specific outcomes, although in abbreviated form, appeared on the worksheet. Dinzi on the other hand, did not review previous work and did not mention outcomes at all, but rather used ‘objectives’ rather than outcomes to guide the lesson.

This raises the question: Why is Dinzi using ‘objectives’ and not outcomes to shape her lessons, and how will this influence her assessment practice? Furthermore only Hayley allowed the students to complete their work before reviewing the answers the following day, while Dinzi provided the answers to the questions after ten minutes without allowing the students to complete the assigned work in class. Why? Dinzi used questions on the worksheets that required simple factual answers from students while Hayley used questions on the worksheet that required students to apply their knowledge. This again begs the question: Why? In both classes the groups of students that I had observed had been experiencing language problems. Would this affect the assessment practices of the teachers? Both Hayley and Dinzi did not make the purpose of the assessment explicitly clear to the students. Neither Hayley nor Dinzi assessed this work of students formally, but perhaps may have informally assessed them through observations. No peer assessment took place despite the fact the Hayley had written, “peer assessment” on the worksheet and Dinzi had requested students to “work in pairs”. This analysis shows first that similarities and differences exist in both their assessment practices as shown above, and second that their assessment practice seems to be weakly connected to their stated claims and to the assessment policy as far as peer assessment is concerned. This raises the question: Why?

#### Lesson on practical work

I now compare each teachers’ lesson where practical work was conducted; in Haley’s case (B4, 25 July 2002) and in Dinzi’s case (A4, 7 August 2002).

As usual Hayley started the lesson with a review of the previous work employing the question and answer method before she provided the students with a worksheet informing them that they were going to do practical work with the given apparatus, namely, a torch, a lamp, a heater, a candle, an alarm clock, a kettle, a fan and a hairdryer (teacher brought these from her home), each distributed on different benches. She requested them to “be as precise as possible” and to tell her “*the form of energy that is in it*”. She continued:

Teacher: *You let the apparatus stand as it is, then you put it on, then you see what you see and what you feel and all of it. Then you switch it off. ...and then underneath on that line you must tell me what type of energy is in the source before I switch it on. Then when I switch it on, what is going, that energy going to turn into. Ok, so you will have a word with its arrow then some kind of energy there is afterwards, ok?*

They rushed excitedly to do the practical work in their groups. Hayley went around observing and assisting. Some groups that I observed were working well, for example, one switched the torch on, discussed that chemical energy was changed to heat and light energy, and wrote it down, using arrows correctly. Another group using the alarm clock seemed confused. One student was discussing while one was writing without using arrows as illustrated below:

“Chemical, electrical, sound”

Some observed groups were discussing in an African language, others in Afrikaans, very few in English. Some were fooling around, for example the one group with the hairdryer and another group with the torch. Hayley seemed to be experiencing problems maintaining discipline and helping students simultaneously. Students were talking very loudly, and seemed to be experiencing problems when she intervened:

Teacher: *It is very confusing if you have the, the states of energy and the forms of energy mixed up. Ok, now this exercise, when you read there at the top tells you, you must tell me the different forms of energy. Ok, so now you cannot tell me it is potential, radiant, kinetic, that is what takes place. But you must be specific. You must tell me what form of energy, which changed into which other form ok. Technically, it is a long story, for the moment we will call it mechanical energy, ok.*

(Emphasis in original)

The students continued working and when they had completed their work Hayley requested students to switch the apparatus off and take their original individual seats.

She continued:

Teacher: *I need you take a pencil in your hand. Ok, now I firstly thought that we would mark one group the others and so forth but then you cannot actually understand what you wrote yourself so I want you to mark your own work.*

She used the question and answer method to review the activities orally as follows:

Teacher: *Ok, next one, the candle, yes?*

Student X: *Wax*

Teacher: *The wax is a form of chemical energy, Ok, next?*

Student Y: *Light energy*

Teacher: *Daars sy. The chemical energy will have an arrow, after the arrow we say light energy and?*

This pattern continued until the end of the lesson and end of the day. However not all students were assessing/correcting their work. Hayley requested that they paste their worksheet in their books and that she would check it on the following Monday (note this was Thursday, and there was no Science on Fridays). She informed them that they would need their books to study for “*a little test for 15 marks next week Thursday*” which she added would be based on forms of energy covered in the previous three pages of work that they did. Hayley dismissed the class.

In Dinzi’s case this was the only time during the seventeen observed lessons that the lesson was conducted in the laboratory. While students were running around in the science laboratory, she handed out worksheets and told them in the midst of the noise that “*we are going to find out about the topic density*”. While the worksheet had the words ‘specific outcomes’ on it, no specific outcomes were written, but the space was left blank. She requested that they form four groups, about ten per group with a maximum of twelve per group. When she said “*one member from each group come to the front for some apparatus*”, a whole group of students ran noisily to the front table. It became extremely noisy with students not only screaming loudly across the classroom but also dragging the laboratory stools. It made it extremely difficult to hear Dinzi’s voice which was drowned by the students’ noise. The audiotape was impossible to transcribe because of the noise in the class. Dinzi wrote on the board ‘pipette’ and showed them what it was. One student walked out of the laboratory without excusing himself – Dinzi either did not notice or did not mind. The students were moving from group to group just to chat to others. Discipline had totally collapsed when the teacher screamed: “*Quiet in your group. Shut up!*” She read the procedure aloud to them and asked one member per group to “*fill the plastic basin with water*”. They did but not without throwing water onto their friends, and messing the floor and the tables. Dinzi requested that they complete the table in their

worksheet after they placed the objects into the water. She had to scream to get their attention. She told them what to do and re-drew the table on the board.

The group that I observed did not know the difference between a rubber stopper and a cork stopper as this was the first time that they saw them and their first visit to the science laboratory. The teacher told them to place a tick in the relevant column. The observed group threw all the objects into the water simultaneously without writing what they observed. One student from another group asked the teacher: “What is ‘sinks’ and what is ‘floats’?” The teacher explained the concepts very briefly. The observed group placed the cork stopper into the water, and filled in the table “cork sinks” (when it floated) in the column ‘floats’. The teacher tried to use one group to demonstrate to the class but was not successful because students were not paying attention but were playing with the water and apparatus. The observed group did not know what to do thereafter and were just playing with the water and apparatus, similar to the rest of the class until the lesson ended.

The analysis of this lesson reveals once again that both Hayley and Dinzi used worksheets and group work as preferred pedagogical styles, and invested much time and effort in preparing for the lessons. Discipline in Hayley’s class is very different to Dinzi’s class, as I have previously indicated. But in both lessons neither the outcomes nor the purpose of the assessment were made clear to the students as requested by the policy. Furthermore Hayley and Dinzi did not formally assess the students’ work themselves. But in Hayley’s case, at least, she requested students to assess their work themselves in pencil, which could be regarded as a form of self-assessment, from the oral review of the work, although this was not formal in the sense that there were no marks given and no recording of students’ performance. In Dinzi’s case there was no evidence of any review of the work or assessment of the work by her or by the students.

#### Individual student work

During the observed classroom lessons I had observed only Hayley conduct ‘individual’ work in class where students were required to respond to a set of prepared

questions set by the teacher and assessed by Hayley, recorded and used as indicated by her:

Teacher: *This worksheet you must do individually, remember as soon as I mark something for marks, I need you to do it yourself because otherwise I can't see if the person next to you can do it. I want to see if you understand it, as soon as you don't understand it, then you must put your hand up, because I am the only one that can help you with this. Is that clear?*

(Emphasis in original)

I have analysed this lesson in detail in Chapter Six. My purpose of repeating it here is to show that I did not observe this kind of assessment practice in Dinzi's classroom.

The question is: Why?

#### Assignment/Portfolio

Similarly I had observed only Hayley conducting an 'assignment/portfolio' in her classroom. This 'assignment/portfolio' requested students to respond individually to a set of prepared questions by the teacher in the form of a booklet. Students had to use their textbook and complete the work in class time. This was formally assessed by the teacher and recorded and used, as reflected by her:

Teacher: *This week we are going to do an assignment so that I can give you marks, so that I can assess you on this work. When I assess you, you must please remember to use your textbook. Now how we are going to do this; this assignment is totally individual, so you must not ask anyone around you. What is happening, there is a paper booklet like this again; I am going to give you. Then the instructions: I will go with all of you through the instructions, and then I am going to ask that you only sit on your own. Just make sure that you have enough space; I know that it is you and that you are doing it yourself.*

(B4, 19 August 2002; emphases added)

I have analysed this lesson in detail in Chapter 6 and will not repeat the analysis save to state that I did not observe this form of assessment in Dinzi's classrooms. Again it begs the question: Why?

### Project work

I observed project work as a form of assessment in Hayley's class only. This project based on specific outcome 6, had been given to students at the end of the third term. It was in the form of a booklet designed and prepared by Hayley. Students were required to complete it in their holidays. I have provided a detailed description and analysis of this project in Chapter Six; therefore I shall not repeat it here. The purpose of mentioning it here is to say that I did not observe this in Dinzi's classroom? Again the question is: Why?

### Tests

As far as tests are concerned, I had observed Hayley administer two tests, one 'small' and one 'standardised' in her class, while Dinzi administered only one, a 'standardised' test. The question is: Why? Hayley handed out the prepared 'standardised test' question papers to the thirty-three students who were absolutely quiet and seated two to three per bench, as in examination conditions. She had informed the students previously about the test. She requested that they hold up their pens with their left hand until she requested them to start writing. She informed them that they had half an hour to complete the questions, before instructing: "*On your marks, get set and go!*" On the question paper appeared the name of the school, the grade, the module, the unit and heading "TEST". It had four questions with a total of 30 marks. It also indicated the criteria that were going to be used for marking the bar graph (this was done in a previous assignment) and a rubric for the assessment of the bar graph with "SO2" written next to the rubric. Each of the four questions were different, for example, question one was based on a diagram provided, question two was a calculation, question three had questions based on information provided in a table and question four on the construction of a graph. Most of the questions focused on recall of facts although there were few for about five marks out of thirty that required application of knowledge. Hayley walked around the room invigilating.

Dinzi stood at the entrance of the classroom and had handed out the question papers to the students as they walked in. The desks and chairs were arranged in groups and students sat in groups on any seat. Two students reported that they did not have pens.

I gave the one student a pen and Dinzi gave one to the other student. There were 42 students in the class joined at five-minute intervals by another two. Dinzi was marking the register as she walked around the classroom. She called out the names aloud and students had to reply, “present” or “absent”. I observed that students were looking into each other’s work because the group seating arrangements encouraged this practice, as well as Dinzi’s attention on marking the register. When Dinzi observed students copying she requested that they separate their desks. Dinzi interrupted the students to inform them that there was an error in question one:

Teacher: *Question one has a mistake. Volume must be in cubic centimetres. The column is volume.*

She wrote on the board: “20 cm<sup>3</sup>”

(Note that the question paper had “20 cm”)

She continued to mark the register. A student enquired about question two, and Dinzi read the question aloud and said:

Teacher: *You must know how to answer the question. Why are you copying the table? Don’t copy the table. You just answer the question. Why I give you question paper if you are going to re-write question paper? One group did not hand in their work yesterday. I must get it after the test.*

The Teacher began writing a letter to the police. I observed students copying. One student, who I had observed to be a clever one in the class, asked the teacher what was required in question three.

Teacher: *Answer number 4 in question 3*

(This seemed very confusing because the same question was repeated in a different way; it seemed as if ‘a cut and paste’ method was adopted by Dinzi). Towards the end of the lesson when she enquired how many had completed the test only five hands were raised. She requested a student to collect the answer sheets while she was continuing writing the letter to the police. Students were leaving the class before the end of the period. When the buzzer rang signalling the end of the lesson seventeen students were still writing the test. The other class (Grade 9A Maths) entered the classroom for their lesson while the 17 Grade 8B students were still writing the test and Dinzi continued writing the letter. Dinzi asked the Grade 9 students whether she had given them an assignment, and they responded “yes”. She continued with her

letter while some Grade 8B students were copying while writing the test, and the Grade 9 students were making a noise while waiting for the teacher to start the lesson. Dinzi then noticed that some Grade 8B students had still been writing the test and requested that they stop before collecting their answer papers. The question paper consisted of three questions with a total of twenty-five marks. One question was a calculation, one was based on information from a table provided and the other was labelling a given diagram. All three questions tested recall of information since all had been done previously in the class.

The comparative analysis reveals the following: In Hayley's class the students write under examination conditions while in Dinzi's class it is not, in fact it is under normal classroom conditions. The question is: Why does this difference exist, and what is its impact on their assessment practice? In Hayley's class the question paper had no errors and was not confusing but Dinzi's question paper had errors that caused confusion. Again this begs the question: Why? Hayley tested application of knowledge while Dinzi did not. Why? Hayley provided her students with a rubric and criteria for assessment while Dinzi did not. Why? However both Dinzi and Hayley did not: make the purpose of the assessment clear, did not use the specific outcomes as the basis for assessment, did not provide the students with the specific outcomes and their assessment criteria to inform them what were to be assessed, and did not use the criterion-referenced approach to assessment as required by the policy. This invokes the question: Why?

#### General comparison of the modal patterns of the observed lessons

I shall compare the modal patterns of the observed lessons, seventeen in the case of Dinzi (A4) and twenty in the case of Hayley (B4).

Most of the lessons of both Hayley and Dinzi were characterised by a 'teacher-centred' approach, with the teacher standing in front of the class, engaging in whole class instruction or using a didactic form of the 'questions and answer' approach; although in Dinzi's case she also provided the answer most times, with limited student input as illustrated below:

Teacher: *We want to calculate density, where do we start? Quickly, quickly. Density is mass over volume.*

After writing the formula for volume on the board and calculating the volume, she asked:

Teacher: *What do we do with the volume?*

She worked out the problem on the board and informed them what kilogram per meter cubed meant, and said:

Teacher: *If other units given, for example, given density and volume and asked to find mass, how do you do it?*

She wrote the formula for density on the board, and used a mathematics example to 'tell' further by also writing on the board:

Teacher: *Density is mass over volume*

(A4, 1 August 2002)

In Haley's class, the question and answer method did invite some student participation as shown below:

Teacher: *What kind of energy does a burning candle use?*

Student A: *Kinetic energy*

Teacher: *Now I want to teach you something. Next to number 1, it counts for 2 marks. This usually means that you need to name 2 things, ok, so if you only say radiant energy I can only give you 1 mark, but what do we know? Radiant energy is made up 2 types of energy? Yes?*

Student B: *Heat energy and light energy*

Oral work was more pronounced in Dinzi's classroom than in Haley's classroom. In fact in Dinzi's classroom both Dinzi and the students did very little written work.

Hayley assessed students' work continuously, used a variety of assessment methods such as tests, assignments, project and practical work, communicated assessment results to students timeously, accurately and clearly, recorded students' marks in her mark book, made assessment an integral part of teaching and learning, and provided assistance to those students who needed it during breaks and after school, while Dinzi seemed not to assess continuously, used only one test as a method of assessment, and seemed not have a mark book to record students' marks. The question is: Why? In

both cases, what students were to learn were not explicitly and clearly defined in most lessons; assessment activities did not focus on the achievement of clearly defined outcomes; the purpose of assessment was not provided; the criterion-referenced approach to assessment was not used; peer assessment did not take place; test questions focused mainly on factual information; and assessment of values and attitudes did not occur. This raises the question: Why?

#### Evidence from documents (A5 and B5)

While Dinzi had four documents, Hayley had a ‘thick’ file with fifteen documents related to assessment. This raises questions: Why the unequal distribution of assessment related documents despite both teachers teaching in the same province? How is each teacher’s assessment practice influenced by these documents? I have provided the names of these documents and described their content in detail in Chapter Five for Dinzi and Chapter Six for Hayley, so I shall not repeat them save to say that the only common document that they both possess is “Circular Number 5/2000: National Assessment Policy as it relates to OBE and the implementation of Curriculum 2005 and Assessment in GET Grades” dated 19/01/2000 from the provincial department of education. This circular claims that it “**aims to assist educators in understanding, developing and implementing assessment practices** that are appropriate for Curriculum 2005” (A5, emphasis in original). It is detailed in terms of what is expected of teachers (ibid). While Dinzi reported that she has read and understood it, Hayley reported that she found it difficult to understand. The questions that emerge are: If Dinzi understands the policy document, is she implementing in her classroom? If the answer is no, then the question becomes why not? Why does Hayley find the policy document difficult to understand? Does this difficulty find expression in her assessment practice and how?

#### Teacher Records (A6 and B6)

##### Lesson preparation

While Hayley had a file containing comprehensively prepared notes, worksheets, assignments, tests, projects, and a year plan for her class (I described and analysed

this record in detail in Chapter Six), Dinzi did not appear to have a lesson preparation file or book. This begs the question: Why?

Mark book/file/Recording sheet

During my observation period from July to September 2002, and follow up visits I did not observe Dinzi's mark book/file/recording sheet. However towards the end of November she showed me one for the first time, with marks recorded on the same form as the class register. I described and analysed this in detail in Chapter Five. But I wish to reiterate my concern: How did she arriving at the 'year mark' or continuous assessment mark that constituted 75% of the final mark for promotion purposes? Hayley had a mark book/file/mark sheets from July and she used it to record students' results. I described and analysed this in detail in Chapter Seven, so I shall not repeat except to say that she differed markedly from Dinzi in recording students' marks. Hayley had a number of sets of marks for each student indicating the different forms of assessment, for example marks for small tests, standardised tests, assignments, projects, practicals, portfolios, and specific outcomes 1,2, 4 and 6. Dinzi had not such marks. The question is why? Hayley computed all these marks to arrive finally to a mark representing the continuous assessment mark for each student for the year. This continuous assessment mark counted for 50% of the final promotion mark while the written November examinations counted for the other 50%. In Dinzi's case, the continuous assessment mark counted for 75% of the promotion mark while the written November examination counted for 25%. The question is: Why? Hayley complained bitterly about how she struggled with the new recording requirements and was still struggling with the complexities associated with recording results as illustrated below:

*I don't have a clue how to record it. I don't know in which format to record it, because I have tried I don't know how many different types of forms to make it easier for myself to put these things in a way that one can use, So my frustration is how do we record and what we record. In the beginning it was told 1 to 5, then it changed to 1 to 4. In the beginning 1 was good and 4 was bad, this year 4 is good and 1 is bad, now I see again on the forms there is not a 1, 2, 3 or 4, it is now a star and a line and a tick or something like that. So for me all this change all the time is making the assessments a nightmare.*

(B3)

This raises the question: Why did Dinzi not experience similar problems associated with what seems a complex recording process as Hayley?

Students' Records (A7 and B7)

Students' Note/Workbooks

In Dinzi's class, not every student had a notebook in class during the seventeen observed lessons. On any particular day only thirty to thirty five percent of the students had notebooks in the class. In fact on one particular day not a single student had a notebook in class (A4, 20 August 2002). Dinzi reported that the reason for this is:

*They're just careless and lose them because the school provides them with notebooks*

(A3)

While in Haley's class every student had a notebook in the twenty observed lessons. This begs the question: Why do students in Dinzi's class lose their books or do not bring them to class regularly?

Hayley had assessed every task (twelve) that had been individually done in the notebooks. She also wrote comments like "well done" or "very good" or "good" where it was deserved. But she initialled other tasks, and where she observed deviations she commented like "I miss your plant worksheet", or in others she commented "neat work". Students marked some tasks in pencil. Test question papers, including the June examination and marked answer sheets were pasted at the back of the notebook. All this did not appear in the notebooks of students from Dinzi's class, except for Dinzi initialling some books occasionally. The question is: Why?

Student Assignment/Portfolio

Only students from Haley's class had assignments or portfolios that I have described and analysed in detail in Chapter Six. I mention it here to show that this was not evident in the notebooks of students from Dinzi's class. Again the question invoked is: Why?

### Record of Tests

The students from Haley's class had pasted all the test question papers with their respective answer sheets at the back of the notebook. Some were short tests (three) others were long tests (two) such as the standardised test of the first term and the June examination. The teacher marked these tests, and students had corrected answers in pencil indicating they were reviewed in class. No such evidence appeared in the notebooks of students from Dinzi's class. In fact it was very difficult to locate evidence of their past tests. Why?

### Report Cards

#### First Term Report Cards

It is not possible to compare the first term report cards as only students from Haley's class brought them, while students from Dinzi's class were unable to locate them. Why were students from Dinzi's class unable to produce their report cards?

#### Half-Year Report Card

Both report cards were titled "Progress Report". While the report card of students from Dinzi's class had the space for the term and number of days absent left blank, the report card of students from Haley's class had it completed. The report card from Haley's class had the nine learning areas fully written out with their respective specific outcomes listed below each learning area, but the report card from Dinzi's class had the acronyms of eight of the learning areas (Technology was written in full) without their meanings and no specific outcomes associated with the learning areas. The report card from Haley's class had a "rating" next to the specific outcomes concerned and a key to the rating appeared at the bottom of the report, for example a rating of 1 indicated "not yet developed", while a rating of 5 indicated "Excels", and next to the rating column was a column that indicated the "percentage" that the student obtained for that particular learning area, while the report card from Dinzi's class had "mark achieved" next to the learning area, and next to this mark achieved was indicated "Effort Symbols" with symbols ranging from "A, S, NAS" with a key

at the bottom of the report indicating what the effort symbols meant, for example, “A” represented “achieved: (50% and above)”, “S” represented “satisfactory: (33% - 49%)” and “NAS” represented “Needs additional Support: (0%-32%)”. In the “Remarks” section of the report card from Dinzi’s class was written “Satisfactory”, while in the “Comments” section in the report card from Haley’s class was written “Lungiwe<sup>12</sup> has a wonderful, quit<sup>13</sup> way of interacting in class – truly a pleasure to teach. Maths need special attention”. The analysis shows that the two ways of reporting assessment information is very different. The question is why and how does this different reporting process influence each teacher’s assessment practice?

### Third Term Report Card

In both cases the students did not receive report cards for the third term because of the shortened school term.

### Year-End Report Card

In both cases the title was “Report”. The report from Dinzi’s class again had the number of days absent left blank and acronyms of the eight learning areas as previously stated, but from Haley’s class the number of days absent was filled in and the nine learning areas were fully written. The report from Dinzi’s class was similar to the second term except that “Effort symbol” was replaced with “Level Achieved” such as “O”, “A”, “PA” and “NA” without a key to explain what they meant; but a key did appear at the bottom of the report indicating for example, “Level 4: Excellent Achievement (70-100%), Level 1: Not Achieved (0%-34%)”. The report from Haley’s class was completely different to that of the second term; it had symbols “O”, “A”, “PA” and “NA” with a key indicating what each represented. In the “Remarks” section of one of the report cards from Dinzi’s class was written “Achieved”; while in the “Comments” section in one of the report cards from Haley’s class was written “Promoted to gr. 9 in 2003. N.A.S in the following learning areas: MLMMS”. The analysis shows that the two ways of reporting assessment information is similar in that levels of achievement such as “O”, “A”, “PA” and “NA” are reported, but they

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<sup>12</sup> Pseudonym used for the sake of confidentiality and anonymity

<sup>13</sup> I believe it may be a spelling error for ‘quiet’

are also very different in that in Haley's class the marks achieved are not indicated. The question is why, and how does this different reporting process influence each teacher's assessment practice?

### Examination Question Papers

#### June Examinations

It is not possible to compare adequately the June examination question papers because Dinzi did not have a copy; neither did anybody in the school, including the Head of Department of Science. However as indicated in Chapter Five, I examined the looses pages from students that resembled answers to the questions, and it revealed that three questions were set and all required low level, factual, short answers, such as "kinetic energy", and "conductors of heat" that carried two marks each. The paper set by Hayley consisted of two sections, section A and section B. Section A consisted of one question requiring short answers, for example multiple choice, true and false, providing correct terms and choosing from a given list of alternatives. It required factual recall of information and made up 25 marks. A prepared answer sheet had been prepared for the responses to this section. Section B had three questions, one based on a diagram, one on an experiment and one graph, each carrying 20 marks each. From this it seems clear that the questions set by Dinzi are simpler, while those set by Hayley are relatively more advanced. This begs the question: "Why the difference in the way they assess?"

#### November examination question paper

Dinzi's students were expected to respond to three questions with a total of twenty-five marks in one hour. All questions were low level, factual questions, such as, "mention three ...; what are; name five; calculate the ...". Haley's students on the other hand were expected to respond to a one-and-half hour paper that carried 120 marks. It had two sections, section A and B. Section A consisted of one question requiring short answers, for example multiple choice, true and false, providing correct terms and choosing from a given list of alternatives. It required factual recall of information and made up 40 marks. A prepared answer sheet had been prepared for

the responses to this section. Section B consisted of two long questions, each carrying 40 marks. Assessment was varied and balanced in terms of the assessment of different types of questions, assessment of knowledge and skills, and application of knowledge was assessed. It is clear that the questions set by each teacher are different. Hayley seems to set questions that are more varied and demand application while Dinzi seems to set low level factual questions only with very little variations to the type of questions. Again the question emerges: Why do they assess in different ways?

The analysis resulting from the comparison of their assessment practices suggest first that Haley's assessment practice is very different from that of Dinzi; second that Haley's assessment practice is congruent with her surface understanding of the policy, with her reported claims and with some of the policy requirements; third Haley's assessment practice is weakly linked to her less positive or negative attitudes/beliefs about the policy; fourth that Dinzi's reported claims do not correspond with her assessment practice; fifth that Dinzi's assessment practice is linked to her surface understanding of the policy; sixth Dinzi's assessment practice does not correspond with her positive beliefs about the policy and with most of the policy requirements.

### **Summary of Chapter Seven**

In summarising this chapter I would argue firstly that both Hayley and Dinzi have different but superficial understandings, and varied beliefs of the new assessment policy, and secondly their assessment practices are different from each other, with some continuity and some discontinuities with the new assessment policy. The analysis invokes the following questions: Why do they have varied and superficial understandings and fluid beliefs about the policy? Why despite the positive beliefs about the policy they are unable to link their assessment practice with the requirements of the policy? Why despite their less positive feelings towards the policy they are able to implement some requirements of the policy? Why are there continuities and discontinuities between their assessment practice and the policy? I shall pursue these questions in the next chapter where I attempt to provide theoretical and empirical explanations to this complex set of issues raised in the study.

## CHAPTER EIGHT

### BETWEEN THEORY AND DATA:

#### **Explaining the Relationship between Assessment Policy and Assessment Practice**

*I am not conversant about the basics. I cannot really get deep into it. I don't have deep knowledge about it as such.<sup>1</sup>*

*I do not understand everything in these documents. I have got all this information; I am not detailed so much in the sense of ideas.<sup>2</sup>*

In the previous chapters I raised a number of questions emerging from this inquiry into teacher understandings and beliefs with regard to the new assessment policy, as well as teachers' assessment practices in the classroom. The pivotal question addressed in this final chapter is: Why do teachers assess students in ways observed? In other words: how can the continuities and discontinuities between official policy on assessment and teachers' assessment practices be explained? In this chapter I attempt to provide an explanation by drawing on the evidence emanating from the two case studies and relating this data to the conceptual framework (deep change) that framed this research (see Chapter Three).

Education reformers have repeatedly tried to change teachers' classroom practice using a variety of strategies, including the introduction of new educational policies as strategic levers for change. The success (or failure) of these strategies, including new policies, have been subject to many empirical studies, and various theoretical explanations were provided for its success or failure (see Chapter Four). In this chapter I seek to add to and extend this understanding of the relationship between policy and practice by providing a different explanation for understanding the relationship between policy and practice. In other words I open another window on the problem of educational change as it relates to new education policies. The window I propose is the conceptual framework on 'deep change' that I developed and described in Chapter Three. I summarise the salient features of 'deep change' as it relates to the findings from the study.

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<sup>1</sup> A quotation from Teacher Dinzi

<sup>2</sup> A quotation from Teacher Hayley

### **Conceptual Framework- Deep Change**

I draw widely on Fullan (1993, 1999b, 2001, 2003) in developing this conceptual framework I call 'Deep Change'. I distinguish between different kinds of change, namely, (1) non-change; (2) superficial or mechanical; (3) incremental change and (4) deep change. Non-change means there is no real change in the achievement of the goals of the policy; superficial change or mechanical change means changes only in the surface features of teacher behaviours where teachers go through the routines of change without understanding or committing to the underlying rationale and principles, or the deeper value-orientations and belief systems that underpin a new reform; incremental change means small steps in the change processes that can be described as evolutionary rather than sweeping, transformative changes signalled in ambitious policies of societies undergoing radical change; and deep change means teachers articulating meaningful understandings of a reform which in turn is reflected in deep changes in the nature and organisation of teaching. It involves a fundamental shift of mind in thinking about change. Deep change involves teachers altering the underlying assumptions, goals, philosophy or belief, skills, conceptions and behaviour regarding teaching and learning and assessment, in other words a change in culture. It implies teachers seeking the best knowledge and ideas in order to delve deeper into helping their students construct new meanings, solve problems, work in diverse groups, and become proactive learners in a complex changing world. It involves taking risks and living with uncertainty. Teachers committed to deep change see themselves as active agents of change rather than victims of change complying uncritically with policy reforms. It describes teachers who are able to negotiate between top-down and bottom-up strategies for changing their practices. It involves teacher collaboration, collaborations formed inside and outside the school. It means teachers fusing the intellectual, political and spiritual forces of change. It also means teachers making personal choices and commitments as well as taking personal responsibility to disrupt the status quo with respect to teaching, learning and assessment.

Deep change results from policymakers adopting a strong theory of education and a strong theory of change with regard to policy, and to make them operate in tandem (Fullan, 1999b, 2003). A theory of education includes the pedagogical assumptions,

the substance of content and pedagogy, and associated components such as moral purpose and the best knowledge in the policy. A theory of change includes the strategies formed to guide and support implementation. Fullan (2003) asserts that it is possible to have a strong theory of education but a weak theory of change, but then the resulting change from this combination will be superficial. The outcomes resulting from the intersections of the two types of theory of education with the two types of theory of change (action) will result in four different kinds of change illustrated below:

		<b>Theory of Education</b>	
		Weak	Strong
<b>Theory of Change</b>	Weak	Drift	Superficial Change
	Strong	Change for the sake of change	<b>Deep change</b>

Theory of education and Theory of change

(Adapted from Fullan, 2003: 53)

There is no single theory of change that applies equally well in all situations therefore the change theory will need to be modified to the unique contexts of the change (Fullan, 1999b; 2003).

I shall use this new conceptual framework on deep change to explain the relationship between macro-level policies and micro-level practices, a relationship that is not only non-linear, but embedded with complexity, dynamism, and unpredictability. In this study I made three tentative propositions about deep change:

Proposition one: *Teachers may not have a deep, sophisticated understanding of a new assessment policy even if there is evidence of strong rhetorical commitment to this policy.*

Proposition 2: *Teachers may not be able to reconcile their own assessment beliefs and capacities with the stated goals of a new assessment policy*

Proposition 3: *Teachers may find that traditional assessment practices (that is, examinations and testing) hold greater efficacy in the classrooms than the alternatives required by a new assessment policy.*

I will use the findings from this study to test each of the three stated propositions. But before I engage in that task I shall explain why each teacher practiced assessment in the ways observed. The impact of any educational change is dependent on many and varied factors, such as factors internal to the school as well as factors external to the school environment. I shall focus on those factors that emerged from each case study.

### **Why Dinzi Implements Assessment Policy as Observed**

The data from the case study on Teacher Dinzi revealed that she had a surface understanding of the new official policy on assessment, that her beliefs about the policy were both positive and negative, but leaning more towards the latter, and that her assessment practices in the classroom was weakly connected, if not disconnected from, the official policy on assessment. These findings provoke the questions: Why does Dinzi have a surface understanding of the policy? How will this surface understanding influence her assessment practice? Why are her beliefs mixed? How will her beliefs affect her assessment practice? Why her assessment practice was weakly connected if not disconnected to the official policy on assessment? In this section I therefore seek to explain Dinzi's assessment practices by drawing on the both empirical evidence from this case and the theoretical claims of the conceptual/theoretical framework on 'deep change'.

I identify several factors emerging from the study that constrained the successful implementation of the assessment policy by Teacher Dinzi. These are Dinzi's personal and professional characteristics, her understandings and beliefs of the policy, the school context, the nature in which the policy was introduced, her knowledge and skills, conflicting demands by educational administrators, policy conflicts and collisions, the nature of the training, the focus on Grade 9 or exit level grades, school based support, collaborative culture, monitoring and evaluation and ambivalence about the policy. These factors function in concert with each other to explain the disconnection between her assessment practice and the policy. There is also a

profound complimentary between surface understanding and beliefs about policy and its implementation in practice

Dinzi's personal and professional characteristics

Her age (forty years) and race (Black African) indicates that Dinzi has many layers of knowledge, skills, values, attitude, understandings and experiences shaped by the apartheid system of education, the oppressive and destructive effects of which have been well documented (see African National Congress, 1994; Christie, 1998; Department of Education, 1995; Hartshorne, 1992; Kallaway, 2002). These layers include firstly, her twelve years of primary and secondary schooling, secondly her four years of teacher 'training' in the homeland tertiary institutions, and thirdly, her approximately ten years of teaching - all in the old tradition dominated by behaviourism and fundamental pedagogics. She therefore has about twenty-six years of formal educational experiences and understandings that framed the teacher not only as a repository and transmitter of knowledge, but also helped frame the function of a teacher as an evaluator who tested whether the knowledge transmitted could be recovered from students as delivered by the teacher. In other words, it was a system that enforced and enhanced the ideas of rote teaching and learning, as well as the view of teacher-centeredness with students as passive recipients of the expert knowledge of teachers. Dinzi referred to this poor standard of education in her own background:

*[Maybe] with the TED schools they are used to those terms, they used to practice assignments and projects, whereas the main Bantu Education had no emphasis put on these things.*

(A1)

The other manifestation of this education and training legacy was her reliance on the textbook as an anchoring resource to guide teaching and learning. In fact Dinzi's faith in the uncritical use of textbooks is so solid that it is reflected in her committed use of two old science textbooks in her classroom, as discussed previously. The new assessment policy however requires that Dinzi make a paradigm shift from the burden of past understandings and practices to one that is 'student-centred' and 'outcomes-based' – a system deeply different politically, epistemologically, and pedagogically from the old system. Dinzi is expected to make a fundamental change at a level so

deep that it would be extremely difficult to achieve except under conditions of sustained teacher support and changes in classroom contexts.

The new assessment policy has been in operation for four years in the new education system (1998 to 2002), and Dinzi has two years experience of it, 2001 and 2002. This essentially means that this new policy has added another layer, a new and paradigmatically different one, over the other layers of twenty-six years of entrenched epistemologies and pedagogies. It seems obvious that the entrenched beliefs and practices would remain stable since it had not been unseated or challenged by this new policy. This layer of the past that has resulted in predictable patterns of teaching would indeed be extremely difficult to unseat, deconstruct or reconstruct. Several attempts to disturb this 'grammar of schooling' (Lortie, 1975) have affirmed stability more often than change (see Ball, 1990, Cohen, 1990, Ball and Cohen, 1999; Hargreaves, 1994). I argue that this patterned behaviour resulting from Dinzi's past educational experiences accounts for her superficial understandings of the new assessment policy, and consequently the observed unchanged assessment practices. She could therefore be expected to resort to the security and stability of tried and tested behaviours and routines in her professional experiences. Evans (2001:32) supports this argument by asserting that the tendency for people to cling to their past competencies is natural. This particular orientation of Dinzi is not her fault, but could be ascribed to the socio-historical legacies that she and many educators in South Africa carry. I am not suggesting that this layer has been calcified and resistant to change; what I am suggesting is that the effort required changing established patterns of thought and behaviour would require sustained and systemic intervention – something underestimated in South Africa's post-apartheid education reformers.

#### Dinzi's Beliefs about the New Assessment Policy

Teachers' beliefs about a policy play a central role in policy implementation, and inextricably linked to their attitude, will, and commitment towards policy learning which in turn will influence their implementation of the policy. Dinzi displayed mixed beliefs towards the new assessment policy, some were positive while others were negative, but the negative beliefs outweighed the positive. Her positive beliefs included: "portfolios are good, the standards are higher, all learners can learn" and

that a positive disposition should be embraced. However she also had negative beliefs such as: it involved too much paper work, required resources that the school could not afford; that continuous assessment was complicated, assessing portfolios was frustrating and de-motivating, the process was not well-planned, introduction was top-down, teachers were not well-trained, facilitators were not well prepared and she did not feel confident and empowered to implement the policy. It seems clear that if all the negative beliefs coalesce, its combined effects on her attitude and commitment towards change would be limiting for change. I would argue that such negative attitudes contribute to Dinzi's surface understanding of the policy and its unsuccessful implementation.

In this regard policymakers and educational administrators have not taken into account the emotional dimension of change (Hargreaves, 1998, 2002), or the concept of emotional intelligence as being advocated by educational change specialists (see Fullan, 1999b, 2001a, 2001b, 2003; Goleman, 1995, 1998; Hargreaves, 2004). Educational change is not only a technical exercise about developing capacity and providing resources, important as they are, but it is also a moral and deeply emotional one. A teacher may be very competent and capable in bringing about change and may have the ideal conditions to make the change work but if the teacher is not emotionally connected to the change, the change will not happen. It is therefore important for reason and emotions to garner the same respect, since they are interactive and critical for deep change to be accomplished, a view supported by Fullan et al (1999b:2):

*Reconciling the respective powers of emotion and cognition increases one's individual and collective capacity for positive change.*

If teachers have negative beliefs about a change, they could develop deep, negative attitudes and resistance towards the change, and getting their buy-in or ownership of the change would be extremely difficult. Ownership is critical to understanding and practicing something fundamentally new because:

*[Shared] ownership of something new on the part of large numbers of people is tantamount to real change.*

(Fullan, 2001: 92)

The importance of teacher ownership is supported by the study conducted by PriceWaterhouse Coopers in Britain (Fullan, 2003:5). I do not think that Dinzi is to be slighted for this lack of ownership or negative beliefs about the policy; it was the way that the policy was introduced to her as well as the nature of the training, topics which are discussed later in this section, that are some of the factors contributing to her surface understanding of the policy and its non-implementation.

### The School Context

The school context is the set of conditions under which teachers operate; and this context is a factor in the successful implementation of change (Evans, 2001; Fink and Stoll, 1998; Fullan, 2003). As McLaughlin (1998) puts it “to ignore context is to ignore the very elements that make policy implementation a problem (p79).

With regard to the conditions in the school, Dinzi listed a litany of constraining factors that prevented her from successfully practising assessment in the ways required by the new policy. These included the lack of basic resources such as textbooks, chalk, dusters, photocopying paper, a properly equipped library, cupboards, and insufficient laboratories with relevant equipment, She also complained about the small size of her classroom, the large number of students in her class, the limited background or prior knowledge of the students, the limited English language proficiency of the students, and the fact that many students live alone with no parental supervision. Students are often caregivers to their siblings. Teachers have little time and too much paperwork. Furthermore, Dinzi complained that most students were so poverty stricken that not only were they undernourished, but also could not afford to access important resources such as the library, computers, internet facilities and other relevant materials to complete projects, assignments and additional activities. These conditions, beyond Dinzi’s control, are concerns that further explain her difficulties in practising the new forms of assessment expected from the new policy. Malcolm Gladwell (in Fullan, 2003:27) identified:

*The power of context as one of three agents of change. The power of context says that people are a lot more sensitive to their environment than they may seem.*

Another contextual problem reported by Dinzi was that the school had been under-staffed, and this under-staffing, she indicated resulted in her teaching time being overloaded. She reported that the provincial department of education responded to this problem of staff shortage by first hiring temporary teachers and then firing these temporary teachers. As discussed previously, temporary teachers were hired in the second term as a response to teacher overload but fired in the third term, the reasons unknown to Dinzi, the staff and the principal. This not only disrupted the continuity of teaching and learning, but it also caused discomfort and disappointment among the staff, including Dinzi, because they were overloaded with class teaching again. Overload is considered one of the main enemies of reform (Fullan, 2000). This view is supported by Evans (2001: 127) who observed that “turnover and reassignment of personnel are among the greatest hazards to innovation”. With regard to overload, the study by PriceWaterhouse Coopers is instructive (Fullan, 2003: 5). PriceWaterhouse Coopers were commissioned by the British government to study the working conditions of teachers and head teachers. Based on their findings they concluded that if the goals of the educational system were to be realised teachers’ workload needed to be reduced (p.5). This school context therefore certainly worked against Dinzi practising new forms of assessment suggested by policy even if she knew how to implement them. The emotional frustration developed as a consequence of being overloaded would certainly take its toll on Dinzi and the school staff because they enjoy no autonomy over staffing which “is essential to maintaining the impetus for innovation” (Loius and Miles, 1990:22).

Dinzi also reported burglaries in the school as a crucial problem; for example the computer and the printer had been stolen but had since been replaced through a fund raising campaign organised by the school.

An added contextual problem related to the large number of social problems that teachers had to address on a weekly, if not daily basis. One common problem was girls falling pregnant as a result of being raped by taxi drivers. Another was the high rate of absenteeism among students. Spending time and energy addressing these socio-economical problems could compromise the time and energy that Dinzi could spend on implementing the new policy.

The external context of the school had added to the internal contextual problems. For example, the degree of poverty, the low educational levels of parents, and parents not living with their children, limited the nature of support that the parents could provide to students for engaging in the new assessment activities such as projects and assignments, amongst others.

Dinzi's understandings and practices of the new assessment policy is inescapably constrained by her school context – one that could be viewed as uncongenial, if not hostile to Dinzi practising assessment in ways suggested in the new policy. Dinzi believed that the school “is not conducive to teaching and learning” (personal communication). It is clear that the context described above together with its established school dynamics of the past twenty-seven years would encourage and buttress the status quo rather than disrupt it. It would generate an inertial force opposing real and deep transformation. I support Fullan (2003) in asserting that transformative change addresses the basic working conditions of teachers to enable them to become fully and deeply engaged in new changes. In other words, a fundamental transformation or re-culturing of the context of the school needs to be achieved which is yet to happen at Delamani High School.

#### The way in which Dinzi was introduced to the new Policy

I will argue that the way the assessment policy and its related documents were introduced to Dinzi could have contributed to her superficial understanding of the policy and consequently its non-implementation.

Firstly the way Dinzi received the policy had been problematic. She reported that it was given to her at a staff meeting but that it was not discussed properly. This could imply that the policy was sent to the principal who in turn gave it to Dinzi. This process of policy flow demonstrates a fundamental flaw in the assumptions policy makers and administrators make with regard to the policy process, namely that there is a linear relationship between the presence of the policy and its understanding, that is, if teachers receive a copy of the policy they will understand it, and secondly, if teachers receive the policy they can and will implement it as policy makers desire; in

other words a direct relationship between policy and practice. The fallacy of this assumption is well known (see Jansen, 1997, 1998, Sayed & Jansen, 2001; Hargreaves et al, 1998). It also demonstrates their mistaken view of policy as a mechanical device and a packaged solution for change. It seems obvious that the said staff meeting had been an ‘information and instructions giving’ session therefore no proper discussion took place. This demonstrates the technical way in which the policy was introduced to Dinzi without any consideration for the conceptual development of deeper meaning and clarity about the policy. Fullan (2001:77) observed that teachers experienced difficulties at the implementation stage when they “find that the change is simply not very clear as to what it means in practice”. In fact Dinzi reported it would be valuable if:

*The educators in the school come together and then look at the documents and try to understand it.*

(A3).

She reported that she does not refer to the policy constantly. I believe that she does not refer to it because she does not understand it. And she does not understand it because it was given to her without the necessary opportunity to engage with its contents to develop the kind of deep meaning and purpose required for its successful implementation.

The way the other policy-related documents are received by Dinzi and the school is instructive in understanding why Dinzi has a surface understanding of the policy and unable to implement it as intended by the policy makers. I will provide quotes from the interviews (A3) to illustrate the way she received information:

*What we get is just documents.*

*Given documents on what is to happen.*

*They sent us the assessment sheets with instructions ‘this is what we are expecting from you’, so you have to get your own learning.*

*Well usually they send a circular.*

*They circulate how many projects, investigations, experiments, assignments and so on”.*

*You are told today by a circular then tomorrow this is needed.*

(A3)

This last quotation illustrates the kind of unreasonable pressure exerted on teachers that force them to engage in practices antithetical to the policy requirements, for example when Dinzi was requested to submit portfolios at short notice she reported:

*It was so sudden, it means daily tests.*

(A3)

Yet portfolios are supposed to include more than just tests. But teachers cannot be blamed for resorting to practices contrary to policy requirements if educational administrators place unreasonable demands on them. The quotations illustrate that the documents containing information regarding the policy are either handed out at workshops or sent to the schools for teachers to use and implement without any discussion of its underlying rationale, whether teachers understand it or not and whether conditions are conducive for its implementation. I call this a ‘posting’ model of policy that is devoid of any empirical or theoretical evidence to support it. This ‘posting’ of the policy is alien to any notion of professional involvement, commitment and responsibility, elements critical for deep change. Hargreaves (personal communication, February, 2004) refers to this form of delivery of policy documents as the “wheel-barrow model” to illustrate the filling of the documents into a receptacle and delivering it to the schools. This ‘posting’ or ‘wheelbarrow’ model reflects the importance that school administrators pay to the technical issues of policy implementation rather than to conceptual issues of clarity so critical for deep understanding and implementation of fundamental change. Having access to information is clearly not the same as understanding the information or developing clarity about its ideas. Dinzi confirmed her lack of clarity:

*I find that now some terms given were not clear or not yet shown to be clear*

(A3)

I discussed previously that she did not have clear conceptual understandings of critical and specific outcomes, assessment criteria and criterion-referenced assessment among other fundamental concepts relating to the new assessment policy. And the way the policy and its related documents were received is partly to blame for this ‘uncertainty’. Fullan (2001: 77) reminds us that “the more complex the reform the greater the problem of clarity”. The new assessment policy is not only complex but the changes demanded are overwhelmingly deep for most teachers – a ‘deep

assessment paradigm' where achieving clarity of the policy is crucial. And a lack of clarity:

*Represents a major problem at the implementation stage; teachers and others find that the change is simply not very clear as to what it means in practice.*

(p.77).

A consequence of a lack of clarity could also have contributed to the development of "false clarity" (p.77) where Dinzi reported that the changes involved changes in terms only, and that she had been doing similar forms of assessment before the new policy had been introduced. She obviously is interpreting the policy in an oversimplified way thus leading to false clarity, which translates to surface understanding of the policy and it's weak if not non-implementation.

### Knowledge and Skills

Dinzi reported that she assessed the students' notebooks, projects, assignments, practical work, and portfolios, and engages in continuous assessment of students' work but my seventeen classroom observations revealed none of this. Her students also reported that they did none of these activities. She is aware of what to do but does not have the kind of deep knowledge and skills necessary to enable her carry out these different forms of assessment activities expected by the new policy. She conceded to her lack of knowledge and skills to implement the new policy:

*Not yet, more training is still needed and support from GDE<sup>3</sup>.*

(A3)

And this is lack of knowledge and skills are no fault of Dinzi. The way the new policy with its ambitious deep changes expected of teachers had been introduced to her as discussed, and the nature of training provided, which I take up later in the section, were wanting in providing the opportunity for her to develop this deep knowledge and skill base necessary for her to practice the new kinds of assessment.

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<sup>3</sup> Meaning the provincial Gauteng Department of Education

Elmore (2003:7) puts it more bluntly:

*Can people in schools be held accountable for their effects on student learning if they haven't been provided the opportunity to acquire the new knowledge and skill necessary to produce the performance that is expected of them?*

I would argue that the reason Dinzi did not practice assessment in the ways stated was that her information about the change was not translated to knowledge. I concur that

*[Information] becomes knowledge only through a social, i.e. interactive process. ....*

*Envisioned change will not happen or will not be fruitful until people look beyond the simplicities of information ...to the complexities of learning, knowledge, ....*

(Brown and Duguid in Fullan, 2003:47, emphasis in original)

Dinzi was aware of or informed about certain aspects of the policy such as using different assessment methods, but she lacked the deep knowledge and skills fundamental for its successful implementation.

#### Conflicting demands by the educational administrators

While the policy demands the implementation of the continuous assessment model by teachers, this mark combined with the examination mark is reduced at the end of the year to different symbols indicating levels of performance that could cause confusion in the minds of teachers. For example, for Grade 8 students, the provincial department of education requires teachers to indicate on the “Summative Record Sheet” symbols such as “-” for level not achieved, “/” for level partially achieved, and “\*” for level achieved in respect of each learning area for each students. But in the “Progression Schedule” they expect teachers to use the symbols “O” for outstanding, “A” for achieved, “PA” for partially achieved’ “NA” for not achieved, and “NAS” for needs additional support in each learning area for each student. However, for the “Progression Schedule for the Grade 9” students on the other hand, the provincial department requires teachers to use marks ranging from 0 to 10 to 20 up to 100 marks as well as numbers “4” for achieved with excellence, “3” for achieved, “2” for partially achieved, and “1” for not achieved. It is not surprising that the teacher complained:

*The documentation and demands from the department causes stress and pressure.*

(Personal communication with teacher, 2 December 2002)

This conflicting demands made by the educational authorities could cause confusion in understanding the policy and consequently compromise its effective implementation.

### Policy conflicts and collisions

Her superficial understanding of the rationale underpinning the new policy discussed previously could account for her unchanged assessment practice. Her superficial understanding is shaped I believe, by Dinzi implementing two different, disconnected and conflicting assessment policies simultaneously, one old and one new. As previously indicated Dinzi did not know that the major shortfall of the old/current assessment policy commonly known as NATED 550 was one of the two reasons that underpinned the development of the new assessment policy. In her grade 10 class the old NATED 550 policy was in operation while in Grades 8 and 9 the new outcomes-based assessment policy that was responding to the weaknesses of NATED 550 was in operation. These two policies with different and disconnected expectations from teachers could obviously cause confusion if not chaos that could contribute to surface understandings and unsuccessful implementation of the new policy. Confusion could lead to unhealthy levels of frustrations, anxiety and stress that could result in extreme difficulties of responding and adapting to change appropriately. Therefore the confusion emanating from the expectations of the two conflicting policies could be profound and should not be underestimated as a powerful constraining factor to developing a meaningful understanding of the new change and its successful implementation. Fullan (2001b: 27) concludes:

*If there was ever a problem of meaning, it is amply demonstrated by the miasma of innovations and their sources.*

Nature of training/professional development

The nature of the training experienced by Dinzi also accounts for her surface understanding of the new policy and her consequential weak implementation of it.

Dinzi reported that the only form of training she received had been in the form of workshops that were general in nature as it related to OBE. These were one-day workshops conducted away from school. But she received no training specifically for assessment, but she estimated about two days of training for assessment incorporated with the other training in the course of the year. Two days training to understand the contents and learn how to implement the ideas of a new, complex and deeply changed assessment policy is clearly inadequate. Dinzi confirmed that *it was not sufficient* (A3). Therefore she regarded it as a *crash course* (ibid). The limitations of ad hoc and discontinuous workshops have been extensively criticised (see Fullan, 2001b). It is important for training to be continuous because it provides:

*[Opportunities] for teachers to consider, discuss, argue about, and work through the changes in their assumptions. Without this, the technical changes they are exposed to during the training are unlikely to make a deep lasting impact on their practice.*

(Evans, 2001: 65)

This opportunity to discuss, argue and debate was unfortunately not provided to Dinzi at the training sessions. The importance of providing such an opportunity becomes even more profound in terms of Dinzi's personal and professional experience and beliefs discussed previously.

The contents of the workshop also seemed problematic because they discussed the *what and how of it, not the why* (A3). In addition when you have a problem with another lesson they didn't give you an example. Well they just tell you what to do. Full stop. It was not helpful because we were instructed what to do (ibid). Her reports illustrate that Dinzi was not provided with the opportunity to engage and interact with the ideas in the new policy to enable her to develop the deep conceptual understanding and productive learning necessary to make fundamental changes in practice. It rather encourages learning that is superficial, narrow and prescriptive. This is consistent with the claims made by Hargreaves (in Fullan, 2003: 7):

*Teachers and schools in poorer communities are being subjected to a form of performance training that provides intensive implementation support but only in relation to highly prescriptive interventions.*

The cascade model is not working as illustrated by Dinzi:

*I think we are not properly work-shopped from the top to the down to educators. Only one or two educators have attended and they give us wrong information.*

(A3).

The pedagogical inadequacy of the cascade model for teacher training has also been sharply criticised and rightly so, by the Review Committee on Curriculum 2005 (Chisholm, 2000). It fails to develop the kind and quality of expertise required for the implementation of our new transformative policies because it is riddled with conceptual and practical faults, such as not modelling the basic tenets and principles of outcomes-based education, and democracy.

The timing of the training had also been problematic. As reported previously, Dinzi received most of her limited training and associated documents in 2002 for implementation in 2002. Clearly this is unacceptable and inadequate to enable Dinzi to understand a new policy with major and deep demands and implement it.

The facilitators responsible for training were not adequately prepared as reported by Dinzi:

*The facilitators conducting the training did not know their work and the district officials are confused.*

(A3)

This situation could only build scepticism and cynicism on the part of educators, rather than their commitment and confidence essential for change. Scepticism and cynicism can lead so easily to demoralisation and demotivation, which would be extremely difficult to restore in order to make the policy work.

The nature of the training provided described above clearly cannot be called development for deep change - development in this instance would think that development:

*[Consists] of the removal of various types of unfreedoms that leave people with little choice and little opportunity of exercising their reasoned agency. The removal of substantial unfreedom is constitutive of development.*

(Sen, 1999: xii, emphasis in original)

On the contrary, the training that Dinzi received adopted a myopic view of training that led to her surface understanding of the policy and non-fulfilment of its goals.

#### Focus on Grade 9 – exit level students

The Department of Education had exerted an unusual amount of pressure on schools with regard to Grade 9 students who would be completing their compulsory phase of schooling, if they were successful. This resulted in Dinzi focusing more attention to the Grade 9 classes than to the observed Grade 8 class. This I would argue contributed to the non-implementation of the assessment policy in this class.

During my first visits to the school I had observed a document referring to Grade 9 work as indicated in Chapter Two. The Assessment Guidelines prepared by the Department of Education (undated) targeted Grade 9 only. The training provided had been targeted at Grade 9 teachers as indicated by Dinzi:

*In Grade 9 they have special training in assessment. But there is no special training for assessment in Grade 8.*

(A3)

Other assessment related documents such as recording and reporting sheets were focused on Grade 9 only. I had observed Dinzi (A4, 14 August 2002) in her Grade 9 mathematics class discussing the department's requirements for portfolios for Grade 9 and she informed them:

*You must keep a file for maths. The District officials and the national officials from the Department of Education will also check your files.*

(A4, 14 August 2002)

On the first day of the fourth term Dinzi informed me:

*This term would be very hectic because of Grade 9 portfolios and Grade 9 examinations.*

(A3)

This illustrates the pressure that Dinzi experienced to focus on a grade that was to exit the specific education band, hence her focus on Grade 9 classes at the expense of her Grade 8 class.

### School-based support

The observed conspicuous absence of classroom-based support from the science head of department, the principal and educational administrators, I will argue, could have contributed to Dinzi's superficial understanding and weak/non-implementation of the new assessment policy. Classroom-based support could provide what Christie (1999: 288) calls "a steady engagement at the school level". Deep learning on the job is necessary for successful change (Evans, 2001). Support is key for success (Fullan, 2001b). But support needs to be balanced with pressure for success (p.91) because "support without pressure leads to drift or waste of resources (p.92). The importance of school-based support is to prevent Dinzi feeling the way she expressed below:

*We are not sure whether we are doing the right thing or the wrong thing.*

*Our department, the senior officials must sometimes come and listen and see the problems that we are experiencing in school.*

*When the assessment facilitators are supposed to come and help us they don't come.*

(A3)

The nature of the school-based support is essential. It should not be technically seen as a control mechanism as indicated by Dinzi:

*Facilitators visit school to check if they had a school assessment policy.*

*Even when the people from the district come they check what is in paper not what happens in the classroom.*

(A3)

### Collaborative Cultures or Professional Learning Community

During my six-week observation period and consequent visits to the school I did not see any professional collaboration amongst the science teachers or other teachers. Each appeared to be working in isolation, the antithesis of a learning community

(Fullan and Hargreaves, 1992). This lack of a collaborative culture or professional learning community in the school and science department could account for Dinzi having a surface understanding of the policy and its weak implementation. This was evident at the staff meeting discussed below, the different way that Dinzi claimed she constituted her marks at the end of the year compared to that of the science head of department (discussed previously), and her fragmented understanding and practice of assessment. She was unable to see the connections between assessment in Grade 9 and Grade 8 despite both constituting the same phase. In fact she believed that there was a “Grade 9 world and a Grade 8 world” (A3). I do not blame Dinzi for this but rather the working conditions of the school that may prevent this kind of collaboration needed for deep change to occur. Researchers concur that it is the working conditions in the vast majority of schools that prevent teachers from working collaboratively (See Fullan, 2001; 60). Collaborative cultures are important because they are constantly converting tacit knowledge into shared knowledge through interaction (ibid: 47). It is also important to note:

*Collaborative cultures are innovative not just because they provide support, but also because they recognise the value of dissonance inside and outside the organisation.*

(Fullan, 1999b: 27).

### Monitoring and evaluation

I had observed a clear lack of monitoring or evaluation mechanism in the school. This lack of an accountability system could account for Dinzi having a superficial understanding of the new policy and her weak implementation of the policy. The manifestations of this absence of monitoring was observed first, when Dinzi did not have the continuous assessment mark sheet for her Grade 8 B class at the end of the third term and it seemed to be accepted without any questions being asked by the science head of department or the deputy principals or the principal, second, when her mark sheet was not ready for moderation by the science head of department who went to mark matriculation examination papers without moderating the mark sheet in November. If monitoring did take place the situation that I witnessed in the staff meeting could have been avoided. At this staff meeting (only one held in six week period) the science head of department who was teaching one class out of the four Grade 8 Natural Science classes informed Dinzi (who taught one Grade 8 class) and

the other teacher who was teaching the other two Grade 8 Natural Science classes that the following day all four Grade 8 Natural Science classes would be writing a control test on density. The teacher who was teaching two Grade 8 classes responded that he had not taught density but another section, namely ‘matter, atoms and molecules’. The science head of department decided that her class and Dinzi’s class would write the control test, and the other two classes would write the test in the following term. We are reminded and I agree:

*The profession must have a clear and effective arrangement for accountability and for measuring performance and outcome.*

(Fullan, 2003:10)

This monitoring and evaluation or accountability could be viewed as pressure that is both positive and essential for opposing the forces that maintain the status quo. For change to be successful both pressure and support are required because “pressure without support leads to resistance and alienation” (Fullan, 2001b: 91).

Monitoring and evaluation is a built in attempt to learn and improve as you go, an essential requirement for successful change.

### Ambivalence

Dinzi’s response to the new assessment policy was ambivalent. On the one hand she felt that the new methods of assessment proposed by the new policy:

*Quite advantageous because you don’t have to stay for the whole month, to give a test. ...You were able to pick up very quickly if they don’t understand.*

*Well firstly I noticed it was exciting for the students, for me as well. Well if it is exciting for the students then they put more effort into doing it. Then it is easier for them to learn about whatever you are teaching them.*

(A3)

Her optimism towards the new policy is backed by her assertion “we need to be positive” (ibid). On the other hand she asserted:

*It was not much change; just new terms...I don’t know where they did their research to find that. I think we’re doing what we’ve been doing all along.*

(A3)

This demonstrates a sense of negativity or resistance towards the policy.

She also reported on the one hand that she changed as a result of the policy, but on the other hand she reported that her role as a teacher did not change.

This ambivalence and ambiguity or duality of meanings makes it difficult to ascertain whether Dinzi was resistant to the new policy per se or not. I did not experience any overt resistance on her part but if there are covert forms of resistance I shall respect and attend to it as a necessary part of the change process. I adopt this stance because I agree:

*[Any] transition engenders mixed feelings. Understanding these feelings is vital to the successful implementation of change.*

(Evans, 2001: 26)

Furthermore Maurer (in Fullan, 2003: 22) observed:

*Resistance is an essential ingredient of success.  
Often those who resist have something important to tell us.  
...They may understand problems about the minutiae of implementation that we never see from the lofty perch atop Mount Olympus.*

This ambivalence could have contributed to her surface understanding of the policy and its non-implementation.

I now explain why Teacher Hayley implemented assessment in ways that I had observed.

### **Why Teacher Hayley Implemented the Assessment Policy in the way observed?**

This case study revealed that Hayley had a surface understanding of the new official policy on assessment, that she had both positive and negative beliefs about the policy although more negative than positive, and that some of her assessment practices were linked to the official policy on assessment while others were not. These findings invoke the question: Why? I respond to this question by constructing the analytical links in my explanation by drawing on the empirical evidence from the study and on theoretical evidence from the conceptual framework of deep change.

I identified similar factors to those identified for Dinzi in Hayley's case. These are: Hayley's personal and professional characteristics, beliefs about the policy, the school context, nature of policy introduction, knowledge and skills, policy conflicts and collisions, nature of the training, focus on exit level examinations, school-based support, collaborative cultures/Professional learning communities, monitoring and evaluation, and ambivalence. These factors function interactively and in combination to determine the successful implementation of the policy.

#### Hayley's personal and professional characteristics

Her age (28 years) indicates that she would have had about sixteen years of experience in education driven by the principles of Christian Fundamental Pedagogics. There is quite a vast literature on this subject and I shall not dwell on this except to emphasise that it valued the uncritical use behavioural objectives and encouraged the use textbooks as the most important guide to teaching. It promoted didactic teaching and learning. Of her five and half years teaching experience, four years have been in the old system and one and half in both the old and new. The past patterned social forces could influence her way of thinking and behaving. She thus could possess her own cherished cultural ideals about education, and a general philosophy underlying this adulation of traditionalist teaching, learning and assessment. She may invariably invoke her ideas of practice and use her past experiential reasoning in deciding how to assess. And now she is expected to make this huge, deep shift to a new system that is driven by outcomes, a concept she has a surface understanding of, expecting her to use 'learning programme', a concept of which she has limited understanding, and to become a 'facilitator', a concept of which she also claimed to have no idea. It seems clear that under such conditions she would resort to her past knowledge and practices that provided her with the security and certainty she so desires. In fact her observed reliance and her reported use of the textbook is a stark reflection of her resorting to the comfort of her past practice. She attests to this:

*I found my way to do it and to still survive with all this.*

(B3)

I am in no way slighting Hayley for this but believe it is the short sightedness, misguided assumptions, and/or misconceptions of the policy makers and education administrators who did not provide her the kind of support and professional development so essential for making the kind of deep changes demanded by the policy. I therefore argue that it is the security and certainty of her past experiences, acts that are normal and understandable (see Evans, 2001), coupled with a lack of appropriate support and professional development, topics I pursue later in this section that could account for the disconnection between her assessment practice and the policy.

Another example that illustrates her reliance in her past tried and tested activities is her report that she uses the criteria of the matriculation Biology syllabus to set the question paper for June and November examination question papers (3 December 2002). The matriculation examination is not driven by outcomes but rather by objectives. The power of the past reliance on the use of objectives had also been demonstrated in her preparation file discussed earlier. She also relies on using marking memoranda, a dominant practice of the past, to assess her students' work.

She is one who respects authority and therefore does not challenge the principal or management (personal communication, 23 August 2002). This is a reflection of her past where a submissive and compliant posture by teachers was promoted and encouraged. This posture would not enable a teacher to take risks, or to disrupt the status quo, fundamentals required to fulfil the policy demands.

Her first language is not English. This could account for her lack of understanding of the policy. This is reflected in her report: *I don't understand the English so well* (B3). It seems obvious that if she cannot understand the language in which the policy is written she would lack clarity about its meaning and goals. Being clear about a reform is a fundamental requirement for successful implementation (Fullan, 2001b). The changes that the new assessment policy expects of teachers are complex and therefore understanding its contents is crucial for its successful implementation. It is therefore likely that Hayley's difficulty in understanding the new assessment policy, which is written in English, could account for her lack of deep understanding of the assessment policy and its subsequent superficial implementation. I should add that

despite this shortcoming, Hayley tried to implement some of the new assessment practices, such as portfolio assessment.

I believe that this power of the past is unlikely to be washed away by policy. The conservative impulse and the cumulative impact of culture and past learning are too strong to permit change by policy alone. I am in no way suggesting that change is not possible; I am suggesting that the kind of initiatives required to disrupt established patterns of thought and behaviour of teachers, or the status quo if you like, would require systemic and sustained efforts yet to be developed for the desired policy goals to be realised at the level of the classroom. I shall also argue that there were many factors that could account for those times where she was able to satisfy the policy requirements, for example assessing continuously, as well as assessing tests, assignments, practical work, and projects (although with some limitations). First because of her race, being white she had the privilege of attending schools where such work was expected of her as a student as she reported:

*I remember what my teachers did ...and actually lots of things that I do, I still go on what I remember on what they did.*

(B3)

Also as a white teacher in a white school this was expected as she had indicated during the interview: “*I have always done it with all my grades*” (B3), so these activities were not totally new to her though the fundamental philosophies and principles were now different. Second she was in a school where resources were not a problem. She did not mention resource constraints at all in any interview, and neither did I observe such constraints. In fact her lessons are conducted in a large, well-resourced laboratory, she is assisted by a laboratory assistant, as well as an assistant to make copies of worksheets, and an assistant to complete the administrative side of recording her marks. Third she is committed to her work. This assertion is based on my observations: all her work such as worksheets and marking was always complete, her lessons always started on time, she supported students during the breaks and after school, and staying in to prepare lessons. A further illustration of her commitment to teaching was demonstrated when I went to the school on the last day of the fourth term, when students and most teachers had left, Hayley remained in school to prepare her work for the following year since she had been informed what classes she would be teaching the following year (3 December 2002). It is this commitment that I

believe contributes not only to her being very organised, disciplined and generally well prepared for her lessons, but to her trying to change as reflected in her report:

*What I am doing at the moment I am taking a piece of work and I am trying to see how many different other methods of assessment can I fit in here, is of such a nature that I can actually use another way of measurement.*

(B3)

### Beliefs about the policy

The role of beliefs cannot but be crucial for understanding and implementing policy. Her beliefs or attitudes described previously reflect her deep negativism towards the policy and that is summarised cogently by her:

*To be honest the assessment for me is a nightmare. Some of the methods are totally ridiculous.*

(B3)

Changes in beliefs are very difficult because they challenge the core values held by people regarding educational change (Fullan, 2001b). While beliefs are generally not made explicit or discussed, Hayley was forthright about how she felt about the new assessment policy. Such deep negative emotional effects may not encourage a teacher to make efforts to understand and implement the policy. And it was seen that the teacher merely files the policy related documents away without any serious attempts at discussing it with other teachers to make sense of them. These deep negative beliefs or attitude could also account for the lack of deep understanding about the policy and its superficial implementation.

But I should add that despite the negative feelings, Hayley tried to implement the policy in some ways described earlier. I think that might be due to many reasons, such as, her commitment to teaching that I have discussed earlier; her entry into the teaching career in 1997 when the drums of change generally and outcomes-based education specifically was so loud, she could have expected change; the supportive role of the principal who she reported she respected for the support she provided, and her faith in God who she reported provided her the strength to go on teaching. In fact she reported that she and a group of teachers in the school prayed regularly in a

classroom as a way to cope with the stresses of teaching (personal communication, August 2002). I had observed the teachers praying during my visits to the school.

### The school context

The school context plays a crucial role in policy implementation because it provides a world of conditional possibilities and impossibilities to teachers.

The school's executive make decisions without providing reasons for the decisions except to instruct them to follow the decisions, for example the cases given previously regarding the instruction by the head of department for Hayley to reduce her continuous assessment marks; the other example is when the school executive instructed teachers to use specific ratios for the December mark sheet, and yet another was when teachers were instructed to use comments on students' reports from a list provided by the school's executive. This traditional management style may be inconsistent with the new thinking on management that would encourage and support teachers to explore new ways of teaching, learning and assessing. This traditional management style may likely promote and value traditional norms and mores. A traditional environment may promote traditional pedagogical practices, rather than the new pedagogical practices demanded from new policies. This traditional school management environment could account for weak implementation of the policy.

With regard to the students in her class, Hayley reported that:

*Learners have attitudes towards tasks, many they just don't care and not motivated.*

(B1)

*They keep jumping up and flying in one another's hair. How on earth am I going to have class in front of me and trying to assess a debate?*

(B3)

Hayley also reported that students experience problems related to language. Their first language is not English and this affects the new assessment practice. I believe that policy makers make assumptions about learner attitude, values, competencies and behaviour with regard to implementing the new policy and these assumptions need to be challenged. The demands made by a variegated student population, and learner

ability, attitude and behaviour would account for Hayley's inability to achieve many of the goals of the new assessment policy.

Tests are written every Wednesdays reflecting the 'testing culture' in the school. Hayley reported that the reasons for these tests were to ensure that *children are continuously busy with the work* and to prepare students for examinations because there is still a strong examination system prevailing (B3). However she tries to combine the old system focusing on content with the new system focusing on skills but in the tests:

*It tests someone's theoretical knowledge. You can get a normal test, you study this and you give it back like in the old way.*

(B3)

This testing culture reinforces the traditional pedagogy that ill serves the new assessment system. Hence it could account for the weak implementation of the new assessment policy that requires less emphasis on tests and rote learning and teaching.

The added demands placed upon Hayley would add to her weak implementation of the policy, for example the school has a 'double assessment system' as reported by Hayley:

*So we are going at the moment on two paths.*

(B3)

The two systems are:

*All the worksheets and the practicals and the projects and assignment still goes on, and then we have a special portfolio project and assignment and worksheet.*

(B3)

She complained:

*It puts a big load on the teacher if you are assessing all the time and marking all the time.*

(B3)

Hayley bemoaned the lack of time to implement the new assessment policy. She complained that she did not have sufficient time to:

*[See] the learners long enough. Have to still teach all my other grades and do extracurricular duties. I can't master content of all the different documents I receive. Not enough time to develop materials fully.*

(B1)

The overloaded demands placed on Hayley resulted in insufficient time for her to respond to the added demands of the new assessment policy. This could contribute to the weak implementation of the policy. Shortage of time repeatedly appears as one of the chief implementation problems (see Hargreaves 1994). Scarcity of time makes it difficult for teachers to plan more thoroughly, to commit themselves to the effort of the innovation, to work collaboratively with colleagues, or to reflect on their practice (p. 15). How much time teachers get away from classroom duties to work collaboratively with colleagues, or to reflect individually is a vital issue for matters of educational change (p.15). Policymakers may have overlooked or underestimated the extra time that would be required by teachers to respond to the new assessment policy. This is because:

*Teachers and administrators perceive time in teaching and change very differently. These differences are rooted in how teachers and administrators respectively are located in relation to the structure of teachers' work. And they ... can lead to profound misunderstandings and struggles about teaching, change and time...*

(p. 15)

Hargreaves (p.16) uses the “intensification thesis: to explain that “teaching is becoming more compressed with worrying consequences”. The consequence could be seen in this case that Hayley was unable to implement the new assessment policy at a deep level because of the time constraints imposed by education policymakers and administrators. This is to say that having good ideas is not good enough, policymakers need also to take cognizance of the “implementation dip”, that is, “a dip in performance and confidence as one encounters an innovation that requires new skills and understandings” (Fullan, 2001a: 40).

Those times when Hayley was able to link her assessment practice somewhat with the new assessment policy was probably due to the evaluation system of teachers in the school, as well as the strict disciplinary rules that were consistently enforced in the school, for example, there was an internal system of evaluating teachers by the head of department of a specific subject discipline. The head of department would administer a set of prepared questions, accepted by the staff, orally to the students. The students had to respond by a show of hands after the head of department read each questions aloud. After analyzing the responses, the head of department and the teacher concerned would meet to discuss the findings. The purpose was developmental (personal communication with the principal). The observed culture of discipline in the school was most impressive. The internal evaluation system and the culture of discipline could have contributed to the establishment of conditions conducive to implementing certain aspects of the new assessment practices by Hayley.

#### Nature of introducing policy and related documents

The way Hayley received the new policy and other documents related to the new system of assessment, I argue, may possibly also accounted for her surface understanding of the policy and consequently its weak implementation.

Hayley reported that she received the policy and related documents mostly through her pigeonhole in the staff room, or given to her by the head of department without discussing it. This surely is no way of introducing a policy that theoretically and conceptually departs deeply from the past. It would be difficult as reflected by Hayley:

*It is a lot of thinking. It doesn't come naturally because none of us was brought up in this way.*

(B3)

It is seems clear that the way the policymakers and educational administrators approached the implementation of the policy was problematic as reflected by the teacher:

*The way the department has approached OBE with the teachers, there's lots of teachers that left teaching because of the way it was dealt with.*

(B3)

She also added:

*I've got two of these thick files full of different types of documents and things they suggest and then they suggest it differently but I really don't know what to use anymore. So I'm really doing at this point in time what I think in my brain. I now make my own things....*

(B3)

*Documents make me feel overwhelmed. Too much information in a short space of time, don't know which one to use. It is easier if one document came; we master it and in a years time another one.*

(Personal communication, 19 July 2002)

This clearly illustrates that the way she received these documents force her to resort to her old ways of assessing and this accounts for her lack of deep understanding of the policy and its non-implementation.

In August 2002 while I was in the chemical room of the laboratory with Hayley, we observed a document titled "Curriculum 2005: Assessment Guidelines: Natural Science: Senior Phase from the Department of Education but it was undated. Hayley reported that this was the first time she has seen this document and that by default. However she reported that another Grade 9 teacher had told her that she had heard about this document from her friend of another school. But since the school did not have the document she did not pursue the matter. This method of 'hearing' information about policy is further illustrated by Hayley:

*So basically what I am doing is all these things that I have heard somewhere along the line.*

(B3)

This further illustrates the faulty way of teachers' contact with the policy related documents.

Added to this is her 'hearing' about the revised curriculum policy:

*I think they are reducing the specific outcomes for each learning area in a revised one that is only going to be implemented later on.*

(B3)

It seems clear that the nature of introducing the policy to Hayley by policy makers did not provide her with the substantial opportunities to learn the practices proposed by the new assessment policy, a fundamental condition for successful educational reform (see Cohen and Hill, 2001), and it prevented her from challenging her acceptance of and comfort with the status quo, that is persuading her why it is necessary to change (see Evans, 2001). It is illusory to think that policy will be read and understood once it reaches the teacher's hand. It is equally illusory to think that teachers would build commitment to the reform because they have received it from higher authorities. Those claims seem quite unjustified and reflect the breathtaking simplicity of rational choice thinking by policy makers and education administrators. I argue that this unswerving consistency of brutal and theoretically obtuse procedures of introducing teachers to a reformed policy would clearly contribute to their superficial understanding of it and consequently its lack of implementation.

#### Knowledge and skills

In the section described previously I described Hayley's lack of knowledge of fundamental concepts such as critical outcomes, assessment criteria, criterion-referenced, underpinning the policy as described earlier. She also reported:

*I have no idea how to link the SOs with the content*

(Personal communication, 23 July 2002)

*Don't know how to manage portfolio files*

(Personal communication, 23 July 2002)

*Don't know how to record information in a useful manner*

(Personal communication, 23 July 2002)

This lack of knowledge I would argue contributed to the weak implementation of the policy. She confirmed:

*I still don't know how to do that. My own knowledge maybe wasn't big enough.*

(B3)

She reported her role has changed in that she has *lots of paper work* (B3). This clearly illustrates her lack of conceptual knowledge about the policy except in the technical and administrative domain. In fact she admitted:

*It is a very administrative thing at the end of the day.*

(B3)

Hayley also complained that she lacked the skills to record marks in the new way expected, and to assess attitudes and values (personal communication, 23 August 2002). Knowledge and skills is related to capacity to understand and implement the policy. Hayley reported that she did not have the capacity to implement the policy because:

*We are overwhelmed with the amount of work to be done. To add more will be fatal.*

(B1)

The importance of building the capacity for change and development at both the classroom and school levels has also been underscored by Harris (2003). Successful implementation of change also requires teachers to move from old knowledge and skills to new competence and capabilities. And when the scope and sophistication of such change go far beyond minor modifications, that is, they seek deep changes, the transition is especially challenging for teachers (see Evans, 2001). I argue that this lack of knowledge and skills, or capacity, may account for her surface understanding of the policy and its weak and/or lack of implementation.

#### Conflicting demands by the educational administrators

As indicated for Dinzi above, the same conflicting demands were made on Hayley with regard to the various documents. Her response to this was:

*I was saying to the teacher next to me: 'I can't believe that everything ends like this'. It actually feels like why did, we do all of this, this year; you have all these forms and SOs and ACs and all of that, here we end up with an 'A' or an 'O' and it's as if it<sup>4</sup> never happened.*

(B3)

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<sup>4</sup> Meaning assessment as she practised including continuous assessment

This conflicting demands made by different documents from higher authorities could cause confusion and dissonance in Hayley's mind, preventing her from seeing any coherence in the assessment system. The importance of coherence is regarded as crucial for successful policy implementation initiatives (see Evans, 2001; Fullan, 2001a, 2001b, Hargreaves, 1994). The conflicting demands and lack of coherence amongst the various assessment related documents could have contributed to Hayley's surface understanding of the assessment policy and its less than optimal implementation.

### Policy conflicts and collisions

The confusion caused by the two different educational systems working simultaneously is a factor that may also account for Hayley's surface understanding of the policy and its weak implementation. For example the requirements for Grade 12 driven by NATED 550, is different from the requirement for Grades 8 and 9 driven by outcomes-based education. Hayley illustrated this:

*So there is lots of contradictions at the moment because they said for portfolios the child (grade 8 and 9) must choose their best.... In matric we use all the things that they did the whole year.*

(B3)

Hayley reported that she uses group work in her class and does have:

*[A] bigger picture of the child that I can see but I'm not writing it down anywhere because the report that the department at the end of the day wants, there's no space to write any of that down.*

(B3)

This illustrates conflicting requirements by the department of education. This conflicting demand could account for her surface understanding of the assessment policy and her superficial implementation of the new policy.

She also reported that she received so many different documents:

*Every time it was something different. I get confused.*

(B3)

Another source of confusion was when the department changed their requirement regarding levels of achievement from 1 to 5 they originally requested to 1 to 4 (personal communication, 26 November 2003). An added source of her confusion came from the educational administrators. They instructed teachers to indicate only levels achieved by students in students' report cards, in contradiction to continuous assessment model. For example the "Summative Record Sheet" from the provincial department of education, required Hayley to indicate students progress by indicating whether students had "achieved, partly achieved, not achieved" the specific outcomes and assessment criteria using specific keys (personal communication, December 2002). The school on the other hand required the use of specific outcomes and continuous assessment, while parents wanted to see percentages. The changing requirement expected by the education administrators is captured in her report:

*Interestingly suddenly the department wants portfolios for grade 9's that contains no assessment of SO's but just % for different activities.*

(B2)

This multiple and varied demands, with conflicting ideas could have added to her confusion and resulted in weak/lack of implementation of the policy. It seems that educational administrators see this method as a pure time-maximisation process, which leaves out much reach for the fulfilment of the new assessment policy goals.

#### Nature of training

I believe that how teachers are prepared/trained can be particularly crucial for the cogency and reach of policy goals. Therefore the nature of the training received would definitely account for her surface understanding of the policy and its consequential weak/non-implementation. All her reports on the nature of training, in terms of timing, time, content, size of groups of teachers, approach and competencies of the facilitators leave much to be desired in terms of achieving the fundamental goals of the policy.

Hayley reported:

*Training was not covering assessment in detail, maybe seven minutes was spent on it.*

(B2)

She added:

*Our training wasn't sufficient enough. I wasn't trained properly. None of them was specifically on assessment.*

(B3)

The miniscule time spent on training on assessment is not only insufficient, but absurd to expect teachers to learn the new and deep meanings embedded in the reformed policy.

The content of the training sessions were also problematic. Hayley complained:

*Just theory, no modelling new assessment practices of assessment. We sit and listen and I have forgotten.*

(B3)

Subverting the views of teachers is a grave mistake. I would like to underscore the point that the underlying constructs of policy may be invested with diverse meanings, that is official policy may acquire multiple meanings in daily practice. The fact that discussions were reportedly absent during the training demonstrates that diverse meanings were not elicited, encouraged and interrogated, a process so fundamental in a multilingual society. I would see it as a practice of silencing teacher deliberations, which undermine open and free debate so fundamental for shared understandings and examination of policy assumptions. This approach reflects not only the lack of a foundational understanding by the facilitators about how teachers learn and change but also their hostility to pedagogical engagement. The nature of training is seemingly the enemy of principles of outcomes-based education and reflects a misunderstanding of the nature of its principles. They also obviously did not pay special attention to create conditions for informed understanding and enlightened discussion, an approach whose central idea is that of the teacher as an active participant in change, rather than a passive and docile recipient of instruction. I believe that there is a strong need for policy makers and educational administrators to go beyond this rather limited and

circumscribed role of teachers in understanding development of teachers towards policy and educational change.

The timing of the training seemed problematic. For example Haley reported that she was orientated to 'portfolio assessment' for the first time in February or March 2002 (she could not remember) while portfolios were supposed to be implemented in 2001 in Grade 8. Hayley was the moderator for Grade 9 work including assessment. Obviously with just an orientation to a method of assessment that was totally new could only but contribute to a surface understanding of it, and its poor implementation.

She also complained that the facilitators at the training workshops did not know their work because they could not provide answers to questions posed by teachers since:

*They were just trained to do this by someone else. Lots of the people there don't have the background.*

(B3)

This illustrates first, the use of the cascade model of training, one so deeply limited that it has come under wide criticism (see Chisholm, 2000); second, the facilitators are incompetent.

Hayley reported that how she assessed some activities this year was different to the previous year because:

*I think you learn as you go along what works and what does not work*

(B3)

This experience from classroom and school practice is seemingly ignored at the training workshops where information and instructions are handed out. Many scholars have critiqued this traditional paradigm of teacher development or 'training' or workshops and suggested different more promising approaches to professional development of teachers (see Ball & Cohen, 1999; Darling-Hammond & Sykes, 1999; Harris, 2003; Hiebert, et al, 2002; Kirtman, 2002; Leat, 1999; McKenzie, 2001; Smyth, 1998).

Focus on exit level examinations

I will argue that the focus of the teacher on the exit level examinations, namely grade 9 and grade 12 would compromise her deep understanding of the policy and its effective implementation. Hayley confirmed this when she reported that she was focusing on moderating the Grade 9 portfolios and “*pay more attention to grade 10 but particularly to grade 12* (personal communication, August 2002).

The fact that only teachers of Grade 9 were given orientation/training for assessment and especially portfolio assessment in 2002 (personal communication, August 2002) is a clear reflection of the focus on exit level grades and examinations. During my visits to the school in July to September 2002 I had observed the Grade 9 teachers in frenzy, literally, regarding the Grade 9 requirement for portfolios and ‘common tasks of assessment’ from the education department. Even Hayley’s attention had moved towards the Grade 9 portfolios that she was moderating.

Hayley reported that when she enquired from the OBE coordinator of the school what the department of education requires of her for Grade 8, the OBE coordinator responded:

*There is nothing definite they want from us for grade 8.*  
(B3)

This illustrates how grades where exit examinations are not written are marginalized.

Classroom-based support

During my visits to the school there was a conspicuous absence of classroom-based support, either from the other science teachers, the school management team, or educational administrators. This classroom-based support I believe is crucial; especially for the implementation of an ambitious new policy like the assessment policy. Hayley reported that she gets no support regarding implementing the policy in school. She complained:

*They just give us circulars. There was no other support.*  
(B3).

It is this lack of classroom support that contributes to Hayley's difficulty in using specific outcomes as intended by the policy. She reported:

*To determine which SO I'm doing at the moment is very difficult. At the end of the day I guess, yes, let's make this SO1.*  
(B3, emphasis added)

I argue that it is this lack of classroom-based support that accounted to her surface understanding of the policy and its weak/lack of implementation.

### Collaborative cultures/Professional learning communities

The importance of a collaborative culture in learning or professional learning cultures is well documented (see Fullan, 2001a, 2001b; Hall et al., 2001; Hargreaves, 1994, 2004). During my twenty-week observation period and consequent visits to the school I did not see Hayley collaborating professionally amongst the science teachers, or other teachers. What I did observe was a very negative 'OBE facilitator' who had been nominated by the school to attend 'OBE meetings', dishing out information, or/and documents, or/and instructions to the teachers in the staff room. This was returned with an equally visible and audible negative response. I observed Hayley usually working alone in her classroom and 'gave' her worksheets to the other science teachers to use. I did not observe them discussing the work professionally. I do not blame Hayley for this, but rather the working conditions she is exposed to that provide her with no time to collaborate with other teachers.

Hayley's report is evidence of her individualist working culture:

*[To] try and get assessment in different ways and develop it by yourself, that is tough.*  
(B3, emphasis added)

She also confirmed:

*I don't have a lot of contact with them. We haven't shared.*  
(B3)

This lack of a collaborative culture of learning or professional learning community in the school could account for Hayley's surface understanding of the policy and its weak/lack of implementation.

Monitoring and evaluation

With the exception of the evaluation of the teacher by the head of department one day in the year, a process that I believe is flawed anyway, (questions are read aloud very fast because it has to be complete in thirty minutes, and students respond by show of hands, it is counted, analysed and report made on teacher) there was a clear absence of any monitoring or evaluation mechanism in the school. I will argue that this lack of an accountability system in the school contributed to Hayley's superficial understanding of the policy and its weak implementation. An accountability system is crucial for addressing issues such as reported by the OBE facilitator that no student should get level 1 or 2, because that would reflect the inefficiency of the teacher. If this were the case then teachers would just shower students with levels 3, 4 and 5, not an indication of authentic student achievement but of teacher efficiency. And this is highly likely in the current climate where students work is not moderated save the mark, not how the mark was arrived at. Thus monitoring is critical in view of Hayley's remark:

*Some people will make the story up. It is too easy to just put a cross on a block*

(B3)

The crucial importance of monitoring and evaluation becomes more important in the context of the following report by Hayley:

*The HOD was very much a statistician. The mark sheets had to have an average.*

(B3)

This type of mechanical and technical moderation would compromise the implementation of the new policy that is criterion-referenced rather than norm referenced.

Hayley reported that the OBE facilitator in the school responded to her assessment query:

*You do what you do.*

(B3)

If this is the case I believe the goals of the policy will not be achieved, therefore monitoring is critical.

Monitoring and evaluation must be seen in the context of Hayley's concerns:

*The whole time it feels like as if you are not doing your job properly. Now you might do what you think is correct because you don't actually know what you are supposed to do*

(B3)

A lack of a monitoring and evaluation system shows an over-reliance on individual conduct, and leaves spaces or openings for actions that could conflict with the goals of the policy. An effective monitoring system could avoid deliberate inaction so that the desired policy change is induced and achieved. Hall et al (2001) make a similar argument for the importance of monitoring implementation because they argue "the change journey is not without bumps and detours" (p.111). Monitoring is important because data gathered during implementation could be analysed, interpreted carefully and used to guide subsequent interventions (p.112).

### Ambivalence

I find it difficult to determine whether she was resistant to the policy or not. In fact I think she was ambivalent because she reported that the policy was both *good and bad*. (B3). She reported that the policy is good because it enabled her to:

*Get to know the child better, more holistic manner, and give weaker child creative ways, not only black and white on paper.*

(Personal communication, December 2002)

She said that the new policy:

*Help learners to be more creative and to think more for themselves. So I think that's a big advantage.*

*Continuous assessment is very good because it is unfair that only big tests and exams are used to evaluate.*

(B3)

On the other hand she had negative feeling towards the policy as well as described earlier. She also reported that she changed as the result of the policy. But the reason for her change reflects a compulsion to change rather than a personal and professional attraction towards the policy. This lack of ownership towards the policy is reflected by her comment on why she changed:

*[That] is what they expect of me; if I want to have a job I will need to change with the system.*

B3)

This ambivalence and lack of ownership could account for her surface understanding of the policy and its weak/non-implementation.

I now attempt to provide an explanation for why there are differences between the observed practices between Dinzi and Hayley.

### **Why does Dinzi and Hayley assess differently?**

A conspicuous difference in their observed assessment practice was that Hayley used a variety of ways to assess her students, such as assessing their worksheets completed in class, assignments, projects and portfolios, as well as tests and examinations; she also used rubrics to assess some tasks, and developed new forms to record students' assessment marks. Her record sheet indicated all the various types of assessed activities for each student from the beginning of the year, and these marks corresponded with the students' records. Dinzi on the other hand used only test and examinations as a method of assessment, did not use rubrics to assess the learners, she did not have a record sheet to indicate students' marks from the beginning of the year, but produced one at the end of the year just indicating marks but how the marks were arrived at was not indicated, and no evidence of assessed student work. The question this raises is about the reasons for the differences, which I explain below.

#### Understandings and beliefs

Both Dinzi and Hayley held surface understandings of the policy, and both had mixed beliefs about the policy, although in both cases there were more negative beliefs about the policy, for example both believed that the training associated with the policy was insufficient. I wish to argue that it was the collective effect of the surface understanding and mixed beliefs about the policy could account for the weak link between their assessment practice and the assessment policy.

#### Personal and profession factors

The differences in their personal and professional characteristics could offer a possible explanation for their different understandings and beliefs and their differences in assessment practices.

Dinzi is Black, who studied in a Black school, college of education and university, all governed by the Bantu Education System, the weaknesses of which have been well documented. She began teaching in and is still teaching in the same Black township school. The combined experience of being schooled in a weak system for sixteen years and teaching in a township school for fifteen years would possibly make it very hard for Dinzi to shift from the traditional educational practice dominated by behaviourist psychology and fundamental pedagogics to a radically new system driven by outcomes. The effort, energy and time that Dinzi has to make would be enormous to narrow if not eliminate the pedagogical gap created between her experience of education and the new educational system. Whereas for Hayley, being White, and schooled in the White system of education with the perceived advantages, change would be easier because the pedagogical gap between her educational experience and the new educational system would be narrower. In fact Hayley indicated that while she was studying to become a teacher in 1996, she had been prepared by her lecturer to teach in a way that challenged the traditional norms, although it was not labelled OBE. She stated:

*The whole way I was taught in my diploma to become a teacher in HED<sup>5</sup>, my lecturer was totally OBE based, although he didn't call it OBE. At that point he was just talking about 'maximizing a student's potential' and you know let them think more and do all these learning activities; you're a facilitator of the learning activities. I was never trained in how to teach in the old way.*

(B3)

This teacher preparation programme would clearly place Hayley at an advantage compared to Dinzi in making the change towards outcomes based education.

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<sup>5</sup> Higher Education Diploma

### Contextual factors

There is clearly a contextual gap between the two teachers. Hayley is teaching in an attractive, well-resourced school, situated in an urban area that is middle class with mostly middle class students, she teaches thirty three Grade 8 Natural Science students in a well-resourced laboratory, and she and her students have new textbooks, while Dinzi on the other hand is teaching in a drab, under-resourced school situated in a township characterised by socio-economic deprivation, she teaches fifty Grade 8 Natural Science students in a small classroom, and she and her students do not have new textbooks. The contextual advantage that Hayley has over Dinzi is clear, and therefore could account for the differences in their assessment practices. It is a combination of the personal and professional gap and the contextual gap where Hayley seems to be at an advantage that enabled Hayley to make some shifts in her assessment practice in line with the new policy while Dinzi's assessment practice seemed untouched by the new policy initiative, despite the fact that Dinzi is in her second year of study towards a Further Certificate in Outcomes-Based Education, while Hayley I not engaged in any formal studies.

I next attempt to construct analytic links between the data or findings from this study and the theory on deep change.

### **COMPARING THE THEORY WITH THE DATA**

In this section I shall examine the data and the propositions I make in this study within the context of the conceptual framework of deep change described earlier in order to understand the linkages/no linkages between the theory and the data. This analytical engagement should enable me to hold up the three propositions about change for theoretical interrogation, and gain new insights into the relationship between macro-level policies and micro-level practice.

Understandings and practice

I will examine and explain specifically the two teachers' understandings of the policy. By their own admission each conceded that they do not have deep understandings of the policy. I repeat it here as a matter of emphasis. Dinzi conceded:

*I am not conversant about the basics. I cannot really get deep into it. I don't have deep knowledge about it as such.*

(A3)

And Hayley admitted:

*I do not understand everything in these documents. I have got all this information; I am not detailed so much in the sense of ideas.*

(B3)

This means that each has a superficial understanding of the policy, rather than the deep, sophisticated meaning of the policy. According to the conceptual framework on deep change a relational link exists between the surface understanding of the policy and the kind of change that teachers make in their practice. That means that each teacher may change only the surface features of their behaviour in the classroom. This change in the surface features of each teacher's behaviour in the classroom found expression when I observed each teacher conducting the practical lesson described earlier. Each teacher had students working in groups, but no assessment took place. This activity provided the opportunity for peer assessment to take place but the teachers did not or could not capitalise on the opportunity. This possibly could be ascribed to the superficial understanding of the policy. Peer assessment is a new pedagogical activity and was not part of teachers past traditional assessment repertoire; hence it could be seen as an example of deep change embodied as the new theory of education implicit in the new policy. In order to achieve this deep change in practice, a deep understanding should precede the assessment practice. The point I want to make here is that here are two teachers with completely different personal, professional and contextual backgrounds but they cohere in possessing similar superficial understanding of the policy. This raises a fundamental question for the successful implementation of the policy, that is, why do these two different teachers have a superficial understanding of the new assessment policy? The reasons may be many and varied. One, revealed by the study, could be the manner in which each

teacher received the new policy. As indicated earlier, Dinzi received the new assessment policy at a meeting, but it was not discussed and Hayley received it in her pigeonhole in the school staff room and the policy was not discussed as well. This approach which I call the ‘posting model’ and Hargreaves (2004) calls the ‘wheelbarrow’ model could possibly account for their surface understanding of the policy and consequently its superficial or non-implementation. This ‘posting’ model points to some assumptions policymakers make, first, maybe they assume that a direct relationship exists between the possession of the policy by teachers and its deep understanding and consequent implementation. In other words, their theory of change would read like this: if they (policymakers) have posted the policy to the teachers then the policy would be read, understood and implemented. In adopting this view policymakers may have overlooked the notion that teachers need to first understand the policy and construct deep meanings of the policy before implementation. The findings from this study show that this deep understanding of the policy did not occur, thereby highlighting the weakness of the assumption and the theory of change of the policy makers. It seems that policy makers clearly overlooked the importance of the teachers actively engaging with the contents of the policy in order to construct meanings from their personal, professional, political, economical and social standpoints. The approach adopted by the policy makers of ‘posting/sending’ policy documents may have been politically and economically expedient but their assumptions that teachers would read and construct deep meanings of the policy process seems flawed. By political and economic expediency I mean a belief that policy makers may hold that since they have posted the policy to teachers the responsibility of policy makers’ ends there. In fact the same process of ‘posting’ is being adopted with the current Revised National Curriculum Statement where the ‘package/box’ containing the policy documents have been posted to each school for every teacher in the education system. This further reflects the confidence that policy makers have in this process of posting policy documents to teachers for them to implement. Another assumption could be that policymakers at the national level may assume that the provincial officials would provide opportunities for discussion and sense-making of the policy, while the provincial authorities in turn may assume that the district officials would provide the opportunity, and the district officials in turn may assume that the principal of the school would provide the opportunities for discussions. And none of this happened in the two case studies, showing that

assumption to be flawed, and their approach theoretically unfounded. This approach of posting could possibly be seen to signify that the intent of the policy makers was only to ensure that all schools and teachers possessed the policy thus satisfying the equity issue, but not necessarily the understanding of the policy by teachers, since that may not have been the intention of the policymakers. It is no wonder that the two teachers did not have the deep understanding necessary to implement the policy. It is unrealistic to expect teachers to deeply understand a policy that is philosophically, epistemologically and pedagogically different from their past experiences, on the basis of merely possessing the policy, especially in the context where the language capital of the teachers is not the same as that of the policymakers. English is the second language of both teachers in this case study. Teachers cannot simply be seen as recipients of the policy in this manner, but they must be seen as active policy partners in the process of change; they must be provided with opportunities to discuss the contents of the new policy, challenging their own understandings, ideas, beliefs and assumptions, and challenging themselves to rethink their teaching and assessment practice, and thereby developing a deep understanding of the reform. The teachers had not been given the opportunity to get involved in open, reflective dialogue about why they should assess differently, about what it meant to assess differently as professionals, to take professional responsibility and to have the pedagogical power to act – in other words they were not provided with the opportunity to become agents of change but instead were seen by policymakers as targets for change. This ‘posting’ of policy orientation of the policy makers may also reflect the hierarchical relationship between policy makers and teachers, where teachers are seen as peripheral to the policy change process, and may also reflect a dichotomous view between policy and practice, thus making it difficult for policymakers and teachers to work together in developing a shared and deep meaning of the policy that could end up in teachers’ showing ownership, commitment and confidence towards the policy, factors that are fundamental for the successful implementation of policy. This method of communication, of posting the policy to teachers could reflect a view of policy makers that Marris (1975, in Fullan, 1993:23) states well:

*They express a profound contempt for the meaning of lives other than their own. For the reformers have already assimilated these changes for their purposes, and worked out a reformulation which makes sense to them, perhaps through months or years of analysis and debate. If they deny others the chance to do the same, they treat them as puppets dangling by the threads of their own conception.*

If they do not deeply understand the policy teachers may not be able to call on it as a source of authority to guide their decision-making as far as assessment is concerned. Instead they may be forced to either call on their old tried and tested experiences in the classroom to guide them, or/and they may read the policy and adopt and adapt what they recognise, which could lead to surface learning of the policy and consequently superficial change resulting in inadequate implementation. For new ideas to be effective, deep understanding is a prerequisite (Fullan, 1993). Conversely, I argue a superficial understanding may contribute to compromising the achievement of the policy goals. I therefore argue, based on the empirical evidence of the study and the theoretical framework that both teachers have a superficial understanding of the policy. This supports the first proposition that I make in this study, namely, *teachers' may not have a deep, sophisticated understanding of the purpose or meaning of the proposed change but rather a superficial understanding of what the change in assessment is about.* And I also argue that it is not the fault of the teachers that they have this superficial understanding of the policy, but the way it was introduced to them by the policy makers, an approach I call “the posting model” that represents a weak theory of change, where teachers were not provided with the opportunity to engage with the contents of the policy to develop the deep sophisticated understandings inherent in the policy.

The data also reveals, as indicated in the previous chapter, that each teacher also has somewhat different general understandings of the policy. This difference in understandings is dependent on each teacher's interpretation of the policy. Interpretations are not neutral processes, but shaped and influenced by personal and professional histories, experiences, values, purposes interests, knowledge, and motivation. This assertion is supported by Allington (2000), Darling-Hammond (1998), Elmore (1983), Looney (2001) and Mc Laughlin (1998). In other words, interpretation of policy is not devoid of politics, power, competing interests and

conflicting struggles (see Jansen, 2002:271). The personal, professional and contextual realities of each teacher are very different as I have indicated earlier. The interplay of these different personal, professional and contextual realities could account for the different understandings of the policy by each teacher. These realities may not necessarily help the teachers in their struggle to make sense of the policy. It is possible that the realities mentioned could act as obstacles to understanding the policy, for example, if the teachers experienced assessment as testing and examination only, and did not experience the new kinds of assessment they are expected to use. And so a paradox emerges. These very teachers are themselves the products of the very system they are now requested to change. A complex process with complex consequences as far as understanding is concerned. It is this complex difference of each teacher's understanding of the policy based on the interplay of their varied personal, professional and contextual realities that policymakers underestimate in the policy 'posting' process. The latter could also probably reflect that policy makers assume a homogenized understanding of the policy by all teachers in line with that of the policy makers. This again demonstrates the policy maker's weak theory of change.

#### Beliefs and capabilities

The data shows that each teacher evoked beliefs about the policy that were simultaneously positive and negative, or appealing and unsettling. The positive beliefs about the policy included both indicating the policy helped them to get to know their students better. But this positive belief about the policy was tempered with negative beliefs, for example Dinzi believed that the policy was not well planned while Hayley believed that the policy was a nightmare. In both cases the beliefs leaned more towards the negative. When teachers hold positive beliefs about the policy they probably would develop shared ownership and commitment towards the reform. Shared ownership and commitment, also affective components of change, are crucial for understanding and practicing something fundamentally new as the new assessment policy. The importance of beliefs in teacher learning and change is supported by Borg, (2001), Dunn (2003), Richards, et al. (undated) and Woods (1996). Policymakers and educational administrators seem to have given insufficient attention to this affective or emotional aspect of change. The importance of the emotional dimension of change or 'emotional intelligence' as it is often referred to, is rapidly

gaining currency in the educational change literature (see Fullan et al, 1999; Goleman 1995, 1998; Hargreaves, 1997, 1998, 2004). In this view educational change is seen as a moral and a deeply emotional one, and therefore positive beliefs about the policy by teachers would seem crucial for the deep understanding and effective implementation of the policy.

Related to the affective aspect of educational change is the cognitive aspect relating to knowledge and skills or capacity to bring about the change. In this study each teacher showed poor knowledge and skills relating to the policy, in other words their capacity to implement the policy is weak. Policymakers again underestimate the phenomenal leaps that teachers need to make in order to construct deep knowledge and skills or strong capacities to implement the new ideas embodied in the policy. The nature, content, and timing of training providing in the form of one-shot workshops described earlier is certainly inadequate for teachers to develop the new kind of capacity demanded by the policy. As I had indicated earlier, these workshop settings did not provide teachers with opportunities to overtly articulate their beliefs and capacities regarding the goals of the policy. The workshops did not provide teachers the opportunity to challenge and maybe change and develop their beliefs and capacities, and develop new ways of thinking about assessment. Skills, creative thinking and committed action really matter for the complex goals of policy (McLaughlin, 1998). This study revealed that the workshops were ‘telling sessions’ where teachers were treated as victims of change, expecting them to comply uncritically with the policy, and not as agents of change. Workshop facilitators and by implication policymakers may not have realized that “you cannot make people change (Fullan, 1993: 23, emphasis in original). You cannot tell and compel teachers to develop new capacities and beliefs. It is no denial that unless teachers’ beliefs and capacities are developed and changed in deep ways in line with the goals of the policy, impact may be limited. And the workshops prevented the teachers from developing the beliefs and capacities necessary to achieve the new and complex goals of the policy. This finding seems to support my second proposition, namely, *Teachers may not be able to reconcile their own assessment beliefs and capacities with the stated goals of the new assessment policy*. The reason for the teachers’ inability to reconcile their own assessment beliefs and capacities with the goals off the policy could possibly be due to the ineffective

nature of the training that they received, another example of the weak theory of change employed by policymakers to bring about change in teachers.

I experiment with the idea of intersecting teacher beliefs about the assessment policy with their capacity to change their assessment practice to examine the kind of change that emerges. I regard teachers' beliefs of the policy to be positive when they say positive things about the policy as indicated above, and negative when negative expressions are made about the policy as indicated above. Capacity could either be strong or weak as indicated above. I propose that when teachers' beliefs about the policy are positive and their capacity to implement the policy strong then deep change would result, and this deep change would possibly lead to deep, sophisticated understanding of the policy and its successful implementation, but if beliefs are negative and capacity weak then no real change would take place, meaning that understanding of the policy may be minimal and implementation unsuccessful. I illustrate the intersections of beliefs with capacities and the resulting changes below:

		<b>Beliefs about policy</b>	
		Positive	Negative
<b>Capacity to implement policy</b>	Weak	Mechanical change	No change
	Strong	<b>Deep change</b>	Superficial change

Dinzi did not use different methods of assessing such as assignments, projects, and portfolios as required by the policy; they were not evident in the observed lessons and follow up visits. This means that changes expected by the policy in this aspect did not take place. Both teachers did not use oral assessment, self-assessment, peer assessment, interviewing and journals as required by the policy. Again this shows that no change took place towards achieving the goals of the policy. This observation that no change took place in the teachers' assessment practice in terms of the policy goals is not a reflection of each teacher's deficiency but rather of the weak theory of change adopted by policymakers, such as one-shot workshops that were inadequate and

ineffective, the way the policy is communicated to teachers, the ‘posting’ method, and others which I refer to later in the chapter. According to this model deep change will be the consequence of combining positive beliefs about the policy with strong capacity to implement the policy. And by implication, if teachers change deeply they may be able to successfully implement the policy.

### Continuous assessment

Each teacher in the case study is at a different place as far as continuous assessment is concerned. As is evident in each of the cases, Hayley seemed to have moved towards using the continuous assessment model as required by the assessment policy while Dinzi seemed not to. However, in using the continuous assessment model, Hayley seemed to have reflected some of principles of the continuous assessment model but deflected others, as I had indicated in summarizing the modal patterns of the twenty observed lessons. I shall highlight the salient points to show the reflections and deflections. By reviewing the assessed activities she ensured that the results of assessment were fed back into and allowed for improvements to be made in the teaching and learning process; she did not merely use a series of traditional tests but various forms of assessment such as projects, assignments, and portfolios as required by the policy. However she struggled with assessing outcomes and values and attitudes in her assessment practice. This may be ascribed to several factors. One is the fact that she is so used to the traditional method of assessing that she may find it difficult to assess using the new continuous assessment model that focuses on the achievement of clearly defined outcomes, including the assessment of attitudes and values. Her historical experience and present experience as a senior Biology teacher seemed to add to her difficulty and struggles, because for most activities she had developed detailed marking memoranda indicating right and wrong answers, and she reported that she used marking memoranda to mark. Even with setting question papers she reported that she tested different cognitive levels, a process used for Biology testing. She also reported that she used the textbook to set questions rather than using the outcomes stipulated in the curriculum and assessment policy. Second, her school culture is characterized by the writing of tests every Wednesdays, the purpose of which is:

*At the end of the day they are going to be expected to write a formal matric exam like what we've had all the years. So this is to prepare them for that. But I make it more OBE like by adding the rubrics. So basically what we're doing is we are really combining OBE with the old system to still give the child the best benefit so that they will be able to complete the matric final exam.*

(B10)

I provide this lengthy quotation to show how strong the emphasis is on the examination and testing, which the continuous assessment model seems to be moving away from. Even with the half-year and final examination papers she reported: *it's exactly like the Biology final exam paper* (ibid). This experience as a senior Biology teacher and the school's testing culture could be contributing factors for Hayley struggling to use the continuous assessment model effectively. With reference to continuous assessment she said:

*We work ourselves into a coma and mark ourselves into a coma. I do it because the school executive expects us to do it and we are following what the department wants from us.*

(B3)

Although Hayley works very hard to prepare all her work, is well organized, is a dedicated teacher who cares for her students and is passionate about teaching, and is held in high regard by the principal, staff and students, I think when it comes to continuous assessment I would like to posit that her changes are mechanical, that is, she goes through the routines because it is expected of her but without committing to the deeper value orientations and belief systems that underpin the model. And this is not because she is deficient in any way. It could be ascribed to her superficial understanding of the policy, to the way the policy had been introduced discussed previously, the nature of the workshops also discussed previously, and I add two other factors that emerged from the study, namely a lack of a school-based support infrastructure and a lack of a monitoring or accountability mechanism.

In Dinzi's case I had only observed one test and one final examination being administered, with no evidence of continuous assessment as indicated in her case study report. The purpose of the final examination was for promotion purposes only as indicated by Dinzi. In her case I would posit that she made no real change in the

desired direction of the reform. And this is no fault of Dinzi, but to, as indicated for Hayley, the combined lack of a school-based support infrastructure and a lack of a monitoring or accountability mechanism. This again illustrates the weak theory of change employed by the policy makers. Policymakers seem to pay little attention to the unfamiliarity of this new type of continuous assessment compared to the past system where simple knowledge is much easier to assess. From years of precedence and practice, traditional pen and paper assessments generate reliable, valid and generalizable results that would understandably be more favoured by teachers. The new approaches to assessment, especially continuous assessment embodied in the policy do not easily fit traditional classes or traditional thinking. Continuous assessment is not only hard and complex for the teachers; it takes courage and involves risks. Teachers must be adventurous and willing to experiment and try things in a context that has not typically rewarded deep change. Teachers are expected to fight the stasis created by traditional tests and examination. Disturbing the status quo of tests and examinations could cause anxiety, fear and inadequacy in teachers. It is for this reason that a balanced combination of pressure in the form of monitoring or accountability and school based support is needed to guide and assist teachers make the shift from tests and examinations towards continuous assessment.

Although both teachers seem to be at different positions of change when it comes to continuous assessment the finding seems to support my third proposition, that is, *Teachers may find the traditional assessment practices (that is, examinations and testing) to hold greater efficacy in the classrooms than the alternatives required by a new assessment policy.*

I illustrate how support for change could interact with pressure for change by monitoring or accountability to produce deep change necessary to achieve the intentions of the assessment policy:

		<b>Pressure for change</b>	
		Weak	Strong
<b>Support for change</b>	Weak	No change	Mechanical change
	Strong	Superficial change	<b>Deep change</b>

I showed that Hayley displayed mechanical change because of the strong pressure from the education administrators and the school executive but a clear lack of support, while Dinzi did not change because both pressure for change and support for change were weak or lacking. According to this model, deep change may ensue by accompanying strong pressure for change with strong support for change. This means that if teachers change deeply they may be able to implement the policy successfully.

#### Policy conflicts and collisions

The data in both case studies showed very little if any use of outcomes in the observed practices of the teachers. Hayley used outcomes in two of the twenty observed lessons while Dinzi did not use outcomes in any of the seventeen observed lessons as discussed earlier. Since this is discontinuous with the outcomes-based policy, that emphasizes the use of outcomes to assess students, I would argue that the teachers made no change in this direction of the policy. The reason for this is not that they overtly rejected or resisted the idea of using outcomes, this rejection and resistance did not emerge in the study, but I would argue in addition to the other factors mentioned previously, for example, their surface understanding of the policy, the way the policy was introduced, the ineffective workshops, their lack of capacity and their negative beliefs about the policy, it may have been caused by the confusion and collisions caused by the policies and mixed messages by the education administrators. Both teachers are expected to simultaneously implement two different policies as I have discussed previously, the old policy known as NATED 550 for Grades 10, 11 and 12 and the new policy for Grades 7, 8 and 9. The new policy is responding partly

to the weaknesses inherent in the old policy. The old policy is not outcomes based and therefore may possibly conflict and collide with the requirements of the new policy. I argue that it may be possible for this conflict, collision and contradiction that contributed to the teachers not using outcomes in their assessment practice as required by the policy. Hayley illustrated this conflict:

*[There] is lots of contradictions at the moment because they<sup>6</sup> said for the portfolios the child<sup>7</sup> must choose their best .... In matric we use all the things that they did the whole year.*

(B3)

Policymakers may have under-rated the difficulties teachers would experience implementing two seemingly contradictory policies simultaneously. This could be a reflection of their weak theory of change. The difficulty experienced by teachers is exacerbated in a context of poor or no classroom based support and surface understanding of the new policy by the teachers. In experimenting with the idea of the relationship between policy conflicts and surface understandings of the policy, I develop different kinds of change as illustrated below:

		<b>Understanding of change</b>	
		Deep	Superficial
<b>Policy conflicts</b>		Mechanical change	No change
	<b>Policy coherence</b>	<b>Deep change</b>	Surface change

In the discussion above I showed that both teachers did not change in respect of using outcomes in their classroom practice, and the explanation for this probably is a combination of their surface understanding of the policy and the policy conflicts emanating from the simultaneous use of two policies. It can be seen that both deep understanding of the policy and policy coherence is required for deep change to take

<sup>6</sup> Referring to the policymakers and educational administrators

<sup>7</sup> Referring to Grade 9

place. This means that if teachers change deeply that may be able to successfully implement the policy.

Using the conceptual change framework on deep change I have shown that teachers may have to change deeply in order to realize the goals or intentions of the policy.

I shall examine the theory of education implicit in the policy before I relate it with the policymakers' theory of change or action.

### Theory of education implicit in the official policy on assessment

This section is premised on my understanding that the new educational system, that is outcomes based, is a radical and deep departure from the past system of education that was mainly content driven. I follow Fullan (2003:53) in understanding a theory of education to encompass the pedagogical assumptions, the substance of content, pedagogy, moral purpose and best knowledge about the policy. It is with this lens that I examine the theory of education implicit in the new official policy on assessment.

The policy makes pedagogical assumptions with regard to the new curriculum and institutional contexts. By asserting that “this new assessment policy ... alongside the new national curriculum framework, provides the pedagogic basis for our new education and training system” (Department of Education, 1998: 7), the policy assumes that educators understand the new curriculum. This research study revealed that the two teachers' understanding of the new curriculum was limited. Second by asserting that the policy will “become a vital instrument for shaping educational practice in the thousands of sites of learning across the length and breadth of our country” the policy assumes uniform institutional or school contexts. In other words the different biographical, historical, political and contextual realities in different schools seem to be overlooked. And this study has shown that these biographical, historical, and contextual differences may have contributed to the different assessment practices of the two teachers. However in terms of content the policy seems very clear, first providing a rationale for the policy, the purpose of assessment, the what of assessment, the different types and tools of assessment, the principles of assessment, and recording and reporting procedures. The content seems to be aligned with what

Brown, et al (2003) call ‘transformative assessment’ and seem to embody the best knowledge and theory about assessment (see also Black, 1998; Gipps, 1994; Lambert and Lines, 2000; Mc Kellar, 2002; Spillane et al 2002). The pedagogy of the policy calls for the integration of curriculum, instruction (teaching and learning), assessment, and professional development of teachers thereby reflecting a deep change orientation to educational change (Fullan, 1999b). Its moral purpose may be reflected in its political and legislative legitimacy, its wide consultative process and in its ambition to improve the lives of all students without prejudice. Based on these observations I argue that the policy embodies a strong theory of education that represents a major and deep shift from the previous conceptions and processes of assessment. However policy is not contagious, in other words, the ideas of the policy would not diffuse on its own to teachers who are expected to implement the ideas in the policy. There needs to be a strategy to enable the policy ideas to be enacted by teachers in their classroom - that is, a theory of change (or action) is required.

#### Theory of change or action

If the assessment policy underpinned by a strong theory of education is to serve the engine of transformation and to change teachers deeply, its theory of change should be equally strong. This is the logic of the conceptual framework on deep change described above. The theory of change should make the theoretical premises of the policy less amorphous and more concrete, and should be designed to facilitate rather than restrict the implementation of the policy. This study has shown that the two teachers did not make deep changes, although Teacher Hayley made superficial changes and Teacher Dinzi no changes in aligning their assessment practices with the policy requirements. The hindrances to deep change and implementation success I will argue is due to the weak theories of action of the policy makers. Their weak theories of change emanating from the data include: avoiding or giving minimal attention to the deep analytical challenges associated with personal transformation of teachers, such as its inherent emotive nature, the emphasis on personal self awareness and the need to resolve past life issues, under-recognition of the professional characteristics of the teachers, under-valuing the beliefs and capacities of the teachers, paying insufficient attention to contextual realities of teachers, the ‘posting’ of policy to the teachers, insufficient recognition given to the conflicting and contradictory

demands made by two simultaneous policies on the work of the teachers, providing ineffective training to teachers, under-valuing the force that exit level examinations exert on teachers, no attention paid to classroom-based support, under recognition of the role of collaborative cultures or professional learning communities, insufficient attention given to monitoring or accountability, and the lack of attention given to the creation of an infrastructure for reform in each school. The theory of change seemed to underestimate the complexities and subtleties of teacher change at the level of the classroom. It is this weak theory of change, I argue, that could account for the superficial understandings of the policy by the teachers, the different beliefs about the policy, and the continuities and discontinuity between the new assessment policy and the assessment practices of the teachers.

This study tested the three propositions and found the following:

**Proposition one:**

*The two case study teachers did not have a deep, sophisticated understanding of a new assessment policy even if there is evidence of strong rhetorical commitment to this policy.*

**Proposition 2:**

*The two case study teachers were not able to reconcile their own assessment beliefs and capacities with the stated goals of a new assessment policy.*

**Proposition 3:**

*The two case study teachers found that traditional assessment practices (that is, examinations and testing) held greater efficacy in the classrooms than the alternatives required by a new assessment policy.*

I wish to restate that the two case study teachers were unable to make deep changes as required by the radical, and ambitious official policy on assessment because the theory of change adopted by policymakers were weak, and not because the teachers are deficient in any way and need to be 'fixed'. While I argue for a strong theory of change, I wish to underscore the importance of a strong theory of change that is realistic, resourced and resilient or flexible. The theory of change should also recognise the non-linearity, complexity, dynamism and unpredictability of the educational change process.

This brings me to the next section, namely the implications arising out of this study.

### Implications of this study

The study has identified and explained various factors that shaped teachers' assessment practices in their classrooms. The point made was that the teachers did not change deeply in line with the changes reflected in the new assessment policy. The study argued that for teachers to change deeply, reformed policies need to be informed by strong theories of education and accompanied by equally strong theories of change. This argument points to the implications of the study for:

- Teacher learning;
- Professional development of teachers; and
- Future research.

### Implications for teacher learning

The study has shown that when policy and related documents had been posted or merely given to teachers with limited or no discussions, learning occurred mostly at a superficial level. It therefore raises important issues about the nature of introducing teachers to new policies and about the resulting nature of learning. This implies that for deep teacher learning to take place, appropriate conditions should be provided for discussions, debates, and clarifications of ideas contained in the policy. This opportunity should be provided close to where teachers do their work; in other words, learning closer to teachers' context. Equally important is for teacher learning to occur closer to teachers' cognition in terms of how they understand their work. This contextually-based teacher learning could possibly assist teachers in addressing the multiple realities they face such as conflicting demands made by educational authorities as well as by different policies. Paying deliberate attention to teachers' contexts and teachers' cognition in the policy learning process seems critical for teacher learning that is deep rather than superficial.

### Implications for professional development of teachers

This dissertation has fore-grounded the personal and professional characteristics of teachers, the understandings and beliefs of teachers towards the new policy, as well as the context in which teachers work. It is recognition of this wealth of biographical experiences and school contexts that matter in bringing about deep change in teachers for the successful implementation of reformed policy goals. When providing professional development opportunities for teachers, policy makers should be sensitive to, and take cognisance of these factors in the policy change process. A range of opportunities need to be provided for the articulation of teachers' understandings, beliefs and assumptions about new policies. The professional development programme should include a system for school-based support and a mechanism for monitoring policy implementation. The professional development programme is one forum to present a powerful theory of change that demonstrates how the personal and professional characteristics of teachers, their understandings and beliefs of reformed policies, and the school context intersect to enable and empower to teachers to change deeply in order to realise the transformational goals of new policies.

### Implications for further research

In this section I highlight a number of questions invoked by this study that could serve as a springboard for further research. The questions are:

- Will a strong theory of change coupled with a strong theory of education result in deep change? In other words, if all the conditions indicated in the study were present, would this result in deep change among teachers?
- How can deep change be effected in teachers firstly in a rapidly transforming country like South Africa, and secondly in a developing country like South Africa with limited human and fiscal capacity?
- “What would a strong theory of change look like in a rural school, in a township school, in an urban school, and in a private school?” This question arises from my recognition that there cannot be a one-size-fit- all theory of change. This is supported by Fullan (2003) who asserts that the change theory

should be modified and contextualised. This question is especially relevant in South Africa where the geopolitical, social and economic unevenness or gaps are still part of life.

- Is the theory of education implicit in the policy too ambitious for the South African context where most teachers have been educated in the old system?
- How can deep understanding of a policy be developed especially in a context where the language capital of teachers differs from that in which the policy is written?
- Why did policymakers employ a seemingly weak theory of change?

In this study I present the argument that if the intentions of policies are to be realized at the level of teachers' classroom practice, teachers need to change deeply. In other words, if teachers do not change deeply the achievement of policy objectives may be compromised. Deep change in teachers may possibly be achieved when policymakers have developed policies that are underpinned by a strong theory of education and driven by an equally strong theory of change or action. Compromising on either the theory of education or on the theory of change would prevent deep change in teachers, which in turn would hinder the successful implementation of the policy.

I have provided a broader theoretical lens into understanding the relationship between policy and practice. While the findings from the study provide a policy picture that is less than ideal, I would cautiously follow the injunction made by Bengu<sup>8</sup> (1998:7):

*[The] transformation of established assessment practice involves a lengthy process of learning and professional development.*

This process of learning and professional development hopefully would embrace a strong theory of change for policy implementation to be successful. Over the next decade, policy makers and policy researchers may want to consider how investments in strong theories of change accompanied by strong theories of education could assist in achieving reformed educational goals successfully. This is especially important now when teachers and schools are being asked to change in unprecedented ways and at unprecedented speed, in other words, to change deeply. It is time for education policy reform to go not only wider, but also deeper.

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<sup>8</sup> First democratically elected Minister of Education in South Africa from 1994 to 1999.

## LIST OF APPENDICES

- A Letter to provincial Head of Department
- B Letter to principal of School A
- C Letter to principal of School B
- D Summary of critical research questions and methods
- E Summary of value of research methods
- F Questionnaire 1
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- J Questionnaire 2
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- L Classroom observation protocol
- M Analysis of teacher and student documents and records
- N Contact summary form
- O Document summary form
- P Contextual Information on the School

## Appendix A

Ms S D Bhikha  
P O Box 2345  
Brooklyn Square  
Pretoria  
0075

Fax: (012) 323 4751  
E-mail: [Bhikha.s@doe.gov.za](mailto:Bhikha.s@doe.gov.za)

15 July 2002

Mr Petje  
Superintendent-General: Education  
Gauteng Province  
P O Box 7710  
Johannesburg  
2000

By fax: (011) 333 5546/8

Dear Mr Petje

### **Permission to conduct research in schools for PhD studies**

I am studying towards a PhD. in Policy Studies at the University of Pretoria. The focus of my study is implementing policy in a reforming, developing country context such as ours. As part of the research I need to collect data from schools. The data collection in two schools will involve questionnaires for Grade 8 science teachers, interviews with these teachers, observing their classrooms and document analysis. The results of the research will inform both policy and practice.

I have discussed this with some school principals who have given in-principle support. I therefore seek your permission to collect data from two schools as part of my doctoral studies. I promise to abide by the principles of anonymity and confidentiality.

The Department of Education employs me as a Chief Education Specialist in the office of Mr Duncan Hindle, the Deputy Director-General for General Education and Training.

Thank you,

Yours sincerely

S D Bhikha

## Appendix B

Ms S D Bhikha  
P O Box 2345  
Brooklyn Square  
Pretoria  
0075

Fax: (012) 323 4751  
E-mail: [Bhikha.s@doe.gov.za](mailto:Bhikha.s@doe.gov.za)

18 July 2002

Mr Smit<sup>1</sup>  
Principal: Delamani High School<sup>2</sup>  
Gauteng Province

Dear Mr Smith

### **Permission to conduct research in schools for PhD studies**

I am studying towards a PhD. in Policy Studies at the University of Pretoria. The focus of my study is implementing policy in a reforming, developing country context such as ours. The specific policy that is the focus of my study is the new assessment policy. As part of the research I need to collect data from schools. The data collection in your school will involve a Grade 8 science teacher answering structured questionnaires, my observing the said teacher's classroom and interviewing the said teacher. I will also need to look at records/documents of the teacher and learners with regard to assessment. The results of the research will inform both policy and practice.

I therefore seek your permission to collect data from your school as part of my doctoral studies. I promise to abide by the principles of anonymity and confidentiality.

Thank you,

Yours sincerely

S D Bhikha

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<sup>1</sup> Pseudonym for sake of anonymity and confidentiality

<sup>2</sup> Pseudonym for sake of anonymity and confidentiality

## Appendix C

Ms S D Bhikha  
P O Box 2345  
Brooklyn Square  
Pretoria  
0075

Fax: (012) 323 4751  
E-mail: [Bhikha.s@doe.gov.za](mailto:Bhikha.s@doe.gov.za)

18 July 2002

Ms Zuma<sup>1</sup>  
Principal: Higgins High School<sup>2</sup>  
Gauteng Province

Dear Ms Zuma

### **Permission to conduct research in schools for PhD studies**

I am studying towards a PhD. in Policy Studies at the University of Pretoria. The focus of my study is implementing policy in a reforming, developing country context such as ours. The specific policy that is the focus of my study is the new assessment policy. As part of the research I need to collect data from schools. The data collection in your school will involve a Grade 8 science teacher answering structured questionnaires, my observing the said teacher's classroom and interviewing the said teacher. I will also need to look at records/documents of the teacher and learners with regard to assessment. The results of the research will inform both policy and practice.

I therefore seek your permission to collect data from your school as part of my doctoral studies. I promise to abide by the principles of anonymity and confidentiality.

Thank you,

Yours sincerely

S D Bhikha

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<sup>1</sup> Pseudonym for sake of anonymity and confidentiality

<sup>2</sup> Pseudonym for sake of anonymity and confidentiality

## Appendix D

### Summary of Critical Research Questions and Methods

CRITICAL RESEARCH QUESTIONS	METHODS
<p>Critical question 1:  <b>What are teacher understandings and beliefs with regard to the assessment policy?</b></p>	<ul style="list-style-type: none"> <li>• <b>Questionnaire</b> containing both open and closed ended questions to elicit teachers understanding of the assessment policy (Appendix E)</li> <li>• <b>Free writing schedule</b> for teachers (Appendix F)</li> <li>• <b>Interview 1</b> with classroom teachers before classroom observations (Appendix G)</li> </ul>
<p>Sub question: How do teacher understandings of the assessment policy compare with the contents of the assessment policy?</p>	<ul style="list-style-type: none"> <li>• <b>Questionnaire</b>, as above</li> <li>• <b>Free writing schedule</b>, as above</li> <li>• <b>Interview 1</b>, as above</li> <li>• <b>Analysis</b> of the assessment policy (Appendix H)</li> </ul>
<p>Critical question 2:  <b>In the context of official policy, how do teachers practice assessment in their classrooms?</b></p>	<ul style="list-style-type: none"> <li>• <b>Questionnaire</b> containing both open and closed ended questions to elicit teachers responses of their assessment practice (Appendix I)</li> <li>• <b>Interview 2</b> before classroom observations (Appendix J)</li> <li>• <b>Classroom observation protocol</b> (Appendix K)</li> <li>• <b>Analysis of documents and records</b> (Appendix L)</li> </ul>
<p>Critical question 3:  <b>How can the continuities and discontinuities between official policy on assessment and teachers' assessment practice be explained?</b></p>	<ul style="list-style-type: none"> <li>• <b>Interview</b> with teachers after observations (unstructured, depended on responses to interviews and classroom observations)</li> <li>• <b>Theoretical analysis</b></li> </ul>

## Appendix E

### Summary of value of research methods

CRITICAL RESEARCH QUESTIONS	METHOD	VALUE
Critical question 1: <b>What are teacher understandings and beliefs with regard to assessment policy?</b>	Questionnaire	This questionnaire will enable me to elicit the teacher's understandings of the new assessment policy. This questionnaire contains both open and closed-ended questions and this is valuable in that the respondents are given the opportunity to select from listed alternatives as well as provision has been made for respondents to express their views freely.
	Free Writing schedule	This will enable me to gain face or unstructured responses of teachers on the meanings they assign to the new assessment policy.
	Interview schedule	This will provide me with in-depth information into teachers' understanding of the new assessment policy. It will complement the data obtained from the questionnaire and free writing schedule hence enabling me to triangulate data.
	Document Analysis schedule	This will allow me to establish the match or mismatch between teacher understandings of the policy and the policy requirements and questions
Critical question 2: <b>In the context of official policy, how do teachers practice assessment in their classrooms?</b>	Questionnaire	This questionnaire will enable me to elicit the teacher's responses to how they implement the new assessment policy. They contain both open and closed-ended questions and this is valuable in that the respondents are given the opportunity to select from listed alternatives as well as provision has been made for respondents to express their views freely. This information will provide the basis for developing follow-up interviews.
	Interview schedule (pre classroom observations)	I will be able to understand more about how teachers practice assessment in their classroom. I will be able to find out their experiences, the difficulties they encountered, as well as the rewards. This data together with data from the other data sources, namely questionnaire, classroom observation protocol and analysis of documents and reports, will enable me to construct a picture of teachers' assessment practice in their classrooms.
	Classroom Observation Protocols	The classroom observations will enable me to obtain behavioural data on how teachers practice assessment in their classrooms. It will also contribute to my understanding of how policy is being played out in practice. The observation data will allow me to link and triangulate data from the teacher questionnaire, interviews, and analysis of documents and records.
	Analysis of documents and records	From the documents and records of both teachers and learners I will be able to obtain more evidence on how teachers actually practice assessment in their classrooms. It will allow me to compare the data received from the other data sources named above.
	Interview schedule (post classroom observations)	I will be able to elicit from teachers why they practised assessment in the ways observed.
Critical question 3: <b>How can the continuities and the discontinuities between official policy on assessment and teachers' assessment practice be explained?</b>	Theoretical analysis	This analysis will enable me to make links between teacher understandings of the policy and their assessment practice. I will locate this analysis within the context of the propositions I make with regard to deep change as well as the indicators of change stipulated in the new assessment policy.

**Appendix F**

**Questionnaire 1**

**PREFACE: The purpose of this questionnaire is to collect information about teachers' understanding of the Assessment Policy. The information you supply will be treated with absolute confidentiality and will be used for research purposes only.**

**PART A**

**TEACHER/EDUCATOR INFORMATION**

**PLEASE FILL IN OR CROSS (X) THE APPROPRIATE OPTION**

**1. Designation of educator**

Teacher level 1	Head of Department	Deputy principal	Principal	Other (specify)

**2. Main teaching subject area**

Maths/ Science	Technical/ Skills	Languages	Commerce	Humanities	Other (specify)

**3. Age**

Under 25	25-29	30-34	35-40	40-49	50-59

**4. Teaching experience in years**

0-5	6-10	11-15	16-20	More than 20

**5 Gender**

Male	Female

**6 Formal qualifications (completed)**

2 year diploma only	3 year diploma only	Degree only	Degree and diploma	More than one degree	Other (specify)

**7. Type of school**

Primary	Secondary	Combined

**8. Description of the school**

Urban	Rural	Not sure

**PART B**

The “Assessment Policy in the General Education and Training Band, Grades R to 9 and ABET” came into effect in 1999 in grades 1 and 2, and progressively across all school grades in the General Education and Training (GET) Band.

The questions below inquire about the information available to you about the Assessment Policy.

**PLEASE FILL IN OR CROSS (X) THE APPROPRIATE OPTION.**

**1. Are you aware of the policy document on assessment?**

Yes	No

**2. Was the document made available to all educators in your school?**

Yes	No

**3. If yes, please state how?**

Workshop	Circular	Conference	Other (specify)

**4. Do you have a personal copy of this policy document on assessment?**

Yes	No

**5. How did you first become aware of the policy on assessment?**

I read the policy document	
I was told by the Head of Department	
I was told by the principal	
I was invited to a workshop	
It was discussed at a staff meeting	
Other (specify)	

**PART C**

**PART C RELATES TO THE ASSESSMENT POLICY**

	Yes	No	Not sure
1. It is easy to understand			
2. It provides clear guidelines for implementation			
3. It allows for flexible implementation			

**PART D**

**What are your views about each of the following statements with regard to the assessment policy?**

**PLACE A CROSS (X) IN THE APPROPRIATE BLOCK.**

	Strongly agree	agree	not sure	disagree	Strongly disagree
1. The policy must be viewed in relation to our larger agenda of reconstruction and development					
2. The policy provides the pedagogical basis for our new education and training system					
3. The policy serves as a vital instrument to shape my educational practice					
4. One of the principal aims of the policy is to enhance the provision of education for every learner					
5. The purpose of assessment should always be made clear to learners					
6. The criterion-referenced approach should be used					
7. Assessment should be an integral, ongoing part of the learning process					
8. The specific outcomes, which are grounded in the critical outcomes, will serve as the basis for assessment					
9. The various specific outcomes and their assessment criteria must be available to learners.					

	Strongly agree	agree	not sure	disagree	Strongly disagree
10. Learners who do not meet the criteria must receive clear explanations with an indication of areas that need further attention					
11. Focusing on formal tests as the sole method of assessment should be avoided					
12. Assessment should be used only to rank, grade, select and certificate learners					
13. Teachers have no problems implementing the new assessment policy					
14. The new assessment policy creates anxiety and stress amongst educators, including myself					
15. Creates opportunity for feedback to learners to improve learning					
16. Creates opportunity for parents' active involvement in their children's education					
17. Creates opportunity for teachers to improve teaching and learning					
18. Creates opportunity for feedback to the school, and other stakeholders about the schools performance					
19. Provides a clear indication about how well every outcome in the learning programmes are being taught and learned					
20. Informs and improves the assessment practices of educators					
21. Has been introduced because of poor matric results.					
22. Makes recording of assessment data cumbersome					
23. Enables assessment results to be communicated clearly, accurately, timeously and meaningfully					
24. Makes it possible for results to be reported both informally and formally					
25. Enables the reporting process to be used as a focal point of dialogue between the home and the school					
26. It allows for the assessment of knowledge, skills, values and attitudes					

**PART E**

**How often do you use the following methods, tools and techniques of assessment?  
Please give reasons for your response.**

	<b>Often</b>	<b>Seldom</b>	<b>Never</b>	<b>Reasons</b>
1. Informal monitoring by observation				
2. Formal use of standardised tests				
3. Oral questions and answers				
4. Conferencing				
5. Interviewing				
6. Self-assessment				
7. Self-reporting				
8. Peer assessment				
9. Portfolios				
10. Observation sheets				
11. Journals				
12. Tests				
13. Project work				
14. Assignments				

**PART F**

**IT IS CLAIMED THAT THE ASSESSMENT POLICY IS DEVELOPMENTAL RATHER THAN JUDGEMENTAL. PLACE A CROSS (X) ON THE RESPONSE YOU CONSIDER MOST APPROPRIATE.**

	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1. It will enable teachers to use assessment information to assist learners' development and improve the process of teaching and learning					
2. It makes it possible to credit learners' achievement at every level, whatever pathway they may have followed, and at whatever rate they may have acquired the necessary competence					
3. It requires the use of tools that appropriately assess learner achievement and encourages lifelong learning skills					
4. It allows the internal assessment process to be moderated externally in accordance with specific provincial guidelines					
5. It encourages me to prepare learners for the General Education and Training Certificate					

**PART G**

**WHAT DO YOU THINK ARE THE MAIN REASONS WHY THE NEW ASSESSMENT POLICY HAS BEEN INTRODUCED IN OUR SCHOOLS?**

**Please write clearly.**

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## Appendix G

### Free Writing Schedule for Teachers

1. When did you first start teaching?
2. How long have you taught this subject and grade?
3. What is your understanding of the new assessment policy?
4. In your view, why was there a need for a new assessment policy?
5. What do you believe are the main goals of the assessment policy?
6. Do you believe that the assessment policy makes new demands on your role as an educator? If yes, what are they and how do you feel about it?
7. How do you expect learners to benefit from this policy?
8. How do you expect to benefit from the policy?
9. What outcomes will persuade you that the policy is a success?
10. What do you understand to be the broad purpose/s of assessment?
11. Do you think that whenever you assess learners, the purpose of the assessment should be given to learners? Why?
12. With regard to the concept of 'criterion-referenced' approach to assessment?
  - What is your understanding?
  - What is its purpose?
  - How would you describe your interests and abilities towards it?
  - What are its drawbacks?
13. How often do you think learners should be assessed? Why?
14. What do you understand by the concepts:
  - Continuous assessment?
  - Formative assessment?
  - Summative assessment?
  - Diagnostic assessment?
  - Evaluative assessment?
15. Do you believe that internal continuous assessment should be externally moderated? Why?
16. What do you understand by 'different methods of assessment' as indicated in the policy?

17. The assessment policy states that assessment must be:

- authentic
- multidimensional
- objective
- multi-dimensional
- fair
- varied
- valid
- balanced
- time efficient
- bias-free
- sensitive to gender, race, cultural background and ability.

How would you interpret each concept, in other words, what does each concept mean to you?

18. Do you think that learners should be involved in the assessment process? Why and how?

19. Should parents be involved in the assessment process? Why and how?

20. It is stated that the assessment process should involve partnerships. What are your views on this? Who do you think would be the relevant partners in the assessment process?

21. Comment on your understanding with regard to recording of assessment information, that is, where recorded, what is reflected, how often recorded, any other relevant details?

22. What do you think about the reporting of assessment results. Comment in terms of frequency, what is communicated, how communicated, and whether learners and parents are encouraged to comment?

23. Did you receive any training with regard to the new assessment policy? If yes, when, for how long, by whom, where and comment on the nature and value of the training?

24. What effect did this new assessment policy have on you?

25. How do you think this new assessment policy has affected learners and their parents?

26. Is there anything else about the assessment policy that you would like to write about? Please write it.

## Appendix H

### Interview Schedule 1 (Pre-classroom observations)

1. What is your understanding of the new assessment policy?
2. Why do you think there was a need for a new assessment policy?
3. What in your opinion are the main goals of this policy?
4. How does the policy position you, in other words, what do you see as your role?
5. It is stated that this policy provides the pedagogic basis for our new education and training system. What does this mean to you?
6. In the new assessment policy, assessment defined as “ the process of identifying, gathering and interpreting information about a learner’s achievement, as measured against nationally agreed outcomes for a particular phase of learning”. What are your views about this definition?
7. How does this policy serve as a vital instrument in shaping your educational practice?
8. How do you collect evidence of learner achievement?
9. What is your understanding of the ‘criterion-referenced’ approach to assessment?
10. What is your understanding of ‘continuous assessment’?
11. What is your understanding of the following with regard to assessment:  
Assessment must be:
  - Authentic:
  - Multidimensional:
  - Objective:
  - fair:
  - varied:
  - valid
  - balanced
  - time efficient
  - bias-free
  - sensitive to:
    - gender
    - race
    - cultural background
    - ability

12. How do you see the relationship between the new assessment policy and the new National Curriculum Framework?
13. What old beliefs and understandings did you have to change as a result of the new policy?
14. What new beliefs and understandings did you acquire as a result of the new assessment policy?
15. What do you see as the major possibilities or opportunities for the successful implementation of this assessment policy?
16. What do you see as the major constraints or limitations for the successful implementation of this assessment policy?
17. What are your suggestions for the effective understanding of this policy?
18. What are your suggestions for the effective implementation of this policy?

## Appendix I

### Analysis of the Assessment Policy (Department of Education, 1998)

**Foreword** by Prof Bengu (p7):

- **Purposes** of new assessment policy:
  - Together with new national curriculum will provide the pedagogic basis for our new education and training system
  - Guide provincial departments of education to design their own assessment policies
  - Provide a vital instrument for shaping educational practices in learning sites of our country
- Carries wide support and legitimacy because of consultation
- Expected Levels of Performance (ELPs)
  - Determine progression between grades and phases
  - Provide vital yardstick to identify learning difficulties
  - Enable remedial actions to be taken
  - ELPs and the new reporting requirements ensure parents and learners will have accurate information on which to base their own assessment of learning progress
- **New reporting requirements** introduced in this policy, parents and learners will have accurate information on which to base their own assessment of learning progress.
- The new policy is **already being practiced** in many learning sites.
- Teachers and professionals (sic – teachers not professionals?) **are undergoing professional development**
- Over the next many years **we will promote this policy and provide the professional development**
- Transformation of established assessment practice involves a **lengthy process of learning and professional development**

P 8: WHY NEW ASSESSMENT POLICY?

- This policy has been developed in **response to a need to phase in assessment practices that are compatible with the newly introduced outcomes-based education**, and
- The **shortcomings of the current assessment policy**, *A Resumé of Instructional Programmes in Public Schools, Report 550 (97/06)*, namely,
  - Prescribes a complex set of rules and regulations for subject groupings and combinations, which formed the basis for matric certification and qualifications for entrance into higher education
  - Lack of transparency
  - Lack of accountability
  - Inadequate assessment practices
  - Inappropriate use of tests and examinations – contributed to high repetition and drop-out rates
  - Absence of meaningful feedback to learners
  - Absence of support for learners who may require learning difficulties

And **the requirements of the new curriculum for Grades R-9 and Adult Basic education and Training have made it necessary to develop a new assessment policy.**

- Both the shortcomings of the current assessment policy and the requirements of the new curriculum have made it necessary to develop a new assessment policy

#### DEFINITION OF ASSESSMENT:

Process of identifying, gathering and interpreting information about a learner's achievement as measured against **NATIONALLY AGREED OUTCOMES** for a particular phase of learning.

#### 4 STEPS INVOLVED.WHAT TEACHERS EXPECTED TO DO:

1. Generate evidence of achievement
2. Collect evidence of achievement
3. Evaluate evidence against outcomes
4. Record findings
5. Use findings to assist learners develop and improve teaching and learning

#### ASSESSMENT IN OBE (Philosophy?): (p9)

- Learner centred
- Result-oriented
- All learners can and need to achieve their full potential bur in different ways and different times

#### IMPLIES/TEACHERS SHOULD: (p9)

- Define what learners are to learn
- Base learners progress on demonstrated achievement
- Use multiple assessment tools to accommodate each learners needs
- Provide each learner time and assistance to realise her/his potential

ASSESSMET IN OBE FOCUSES ON THE ACHIEVEMENT OF CLEARLY DEFINED OUTCOMES – that makes it possible to credit learner achievement at:

- Every level
- Whatever pathway
- Whatever rate

#### TEACHERS expected to:

- Use **TOOLS** that:
  - Appropriately assess learner achievement
  - Encourage lifelong learning
- Use **COUNTINOUS ASSESSMENT MODEL**  
WHY? because:
  - ❖ It is the best model to assess outcomes of learning throughout the system
  - ❖ Enable improvements to be made in the learning and teaching process

HOW to be used:

- ❖ Support learners develop
- ❖ Feed back into teaching and learning
- ❖ Not to be used as a series of traditional test results

WHO (p11): Internal CA administered and marked by educators

MODERATED: Internal assessment process should be moderated externally, for example, professional support services within the guidelines set by the provincial department of education

AIMS of policy:

- Enhance the provision of education which is continuous, coherent and progressive, for each learner
- Key element in the quality assurance system
- Introduces a shift from a system that is dominated by public examinations which are high stakes, and whose main function has been to rank, grade, select and certificate learners, TO A NEW SYSTEM THAT INFORMS AND IMPROVES THE CURRICULUM AND ASSESSMENT PRACTICES OF EDUCATORS, ... (p9-10)

TEACHERS expected to: (p10)

- Use diverse modes of assessment
- Improve their expertise in:
  - Designing appropriate assessment instruments
  - Developing appropriate assessment instruments
  - Using appropriate assessment instruments

MODERATION:

- WHY? To ensure that appropriate standards are being maintained in the assessment system
- HOW On a sample basis at different levels of the system  
Moderation mechanisms at school, provincial & national levels
- WHO ETQA responsible

PRINCIPLES/TEACHERS EXPECTED TO:

- Make the purpose of assessment clear - transparent
- Use criterion-referenced approach
- Use assessment that is:
  - Authentic
  - Continuous
  - Multidimensional
  - Varied
  - Balanced
- Make assessment an on-going integral part of the learning process
- Ensure assessment is:
  - Accurate
  - Objective
  - Valid

- Fair
- Manageable
- Time efficient
- Match the FORM, CONTEXT and METHOD of assessment to:
  - What is being assessed
  - Needs of learners
- Match the METHOD and TECHNIQUE of assessment to:
  - Knowledge, skills, attitudes to be assessed
  - Age of learners
  - Developmental level of learner
- Ensure assessment is:
  - Bias free
  - Sensitive to:
    - gender
    - race
    - cultural background
    - ability
- Communicate assessment results:
  - Clearly
  - Accurately
  - Timeously
  - Meaningfully
- Link progression to the achievement of specific outcomes
- Ensure progression is not rigidly time-bound
- Use evidence of progress in achieving outcomes to identify areas where learners need support and remedial intervention

#### PURPOSE OF ASSESSMENT (p10-11)

1. Determine whether learning required for the achievement of the specific outcomes is taking place
2. Determine whether any difficulties are being encountered
3. Report to parents, other role players and stakeholders on the levels of achievement during learning process
4. Build a profile of the learner's achievement across the curriculum
5. Provide information for the evaluation and review of the learning programmes used in the classroom
6. Maximise learners' access to the knowledge, skills, attitudes and values defined in the national curriculum policy

#### TYPES OF ASSESSMENT:

1. Formative: so that positive achievements of the learner may be recognised and discussed and the appropriate next steps may be planned
2. Summative: for recording of overall achievement of a learner in a systemic way
3. Diagnostic: through which learning difficulties may be scrutinised and classified so that appropriate remedial help and guidance may be provided
4. Evaluative: to compare and aggregate information about learner achievements to assist in curriculum development and evaluation of teaching and learning

WHAT IS ASSESSED (p11):

- The specific outcomes grounded in the critical outcomes will serve as basis for assessment
- Focus of assessment shall be on the progress learners make towards the achievement of the outcomes
- The specific outcomes and their assessment criteria must be made available to learners to inform them what is to be assessed. **This transparency of the outcomes makes explicit which was formerly only implied or assumed.**
- Learners who do not meet the criteria must receive clear explanations with clear explanations with indications of areas that need further work and must be assisted to reach the required criteria.

WHO ASSESSES (p12)

- Educators have overall responsibility to assess achievement of specific outcomes
- Partnership between – educators
  - learners
  - parents and
  - education support services

METHODS, TOOLS AND TECHNIQUES OF ASSESSMENT (p12)  
(to measure performance against or achievement of specific outcomes)

- Use variety of METHODS:
  - Informal monitoring by observation
  - Formal use of appropriate and approved:
    - ❖ Standardised tests
    - ❖ Oral questions and answers
    - ❖ Conferencing
    - ❖ Interviewing
    - ❖ Self-assessment
    - ❖ Self-reporting
    - ❖ Peer-assessment
- Use a variety of TECHNOQUES (ALL EDUCATORS should have a sound knowledge of what each technique offers, and use it in a balanced, fair and transparent way )
  - ❖ Portfolio assessment
  - ❖ Observation sheets
  - ❖ Journals
  - ❖ Tests
  - ❖ Project
  - ❖ assignments

### RECORDING (P12)

- Cumulative records:
  - Cumulative evidence of learner achievement must be recorded which should accompany learners throughout their learning paths
  - These record should include information on the holistic development of the learner such as:
    - values
    - attitudes
    - social development
- Portfolios:
  - Should be built over a period of time and retained as visible proof of the development and improvement of learner achievement
  - Include samples of learners' work that show they are able to integrate knowledge, concepts, and skills, and not been assessed only on memorisation of information

### REPORTING (p12-13)

- Effective communication about learner achievement is a prerequisite for the provision of quality education
- A report must convey through the educator's comment:
  - A clear impression of personal knowledge of the learner
  - Summarise achievement and progress
  - Useful feedback to evaluate and improve teaching and learning
- Comments from parents and where practicable, from learners should be encouraged
- Reports should be signed by the head of the institution or other appropriate person with an overview comment when this is necessary
- The reporting process shall:
  - ❖ Serve as opportunity to provide regular feedback to learners as part of everyday teaching and learning process
  - ❖ Provide an accurate description of progress and achievement
  - ❖ Allow for comment on the personal, and social development and the attendance of the learner
  - ❖ Give an indication of the strengths and developmental needs and identify follow-up steps for learning and teaching
  - ❖ Encourage learning through a constructive approach
  - ❖ Become a focal pint for dialogue between home, learning site
  - ❖ Enhance accountability
  - ❖ Must be sensitive to the needs and responsibilities of parents
- Reporting must be seen as an integral part of teaching and learning
- Formal reporting on learner assessment will be done at regular intervals as determined by provincial policy, or at the request of a learner, parent or prospective employer
- Reporting may include:
  - ❖ Formal meetings
  - ❖ Written reports
- Less formal reporting include dialogue either individually or in groups

ASSESSMENT IN GRADE R – 9 (p13-14)

- The curriculum for each of 3 phases is organised within learning programmes
- In Senior Phase 8 learning programmes, one of which is Natural Science
- These learning programmes will serve as a basis for assessment in each phase
- Assessment must provide a clear indication about how well each and every outcome is being taught and learned
- Learners must show evidence of progressing towards achieving all the outcomes, to ensure that the essential skills, knowledge, understanding, attitudes and values are demonstrated
- Learners will progress with their age cohort
- Where it is felt that a learner needs more or less time to demonstrate achievement, decisions shall be made based on the advice of the relevant role players, e.g.:
  - educators
  - learners
  - parents
  - education support services
- If a learner needs more time to achieve particular outcomes s/he may not be retained in a grade for a whole year
- No learner should be stay in the same phase for longer than 4 years, unless the provincial Head of Department has given approval based on specific circumstances and professional advice.

## Appendix J

### Questionnaire 2

**PREFACE: The purpose of this questionnaire is to collect information about how teachers practice assessment in their classrooms.**

#### PART A

**PLEASE READ EACH OF THE STATEMENTS BELOW WITH REGARD TO YOUR CURRENT ASSESSMENT PRACTICE AND PLACE A CROSS ON THE NUMBER OF THE RESPONSE YOU CONSIDER MOST APPROPRIATE.**

**How does your current assessment practice match each of the following statements?**

	<b>Mirrors the statement</b>	<b>Room for improve ment</b>	<b>Does not mirror the statement/ requires re-thinking</b>
1. Assessment involves generating and collecting evidence of achievement, evaluating this evidence against the outcomes, recording the findings of the evaluation and using the information to assist learners' development and improve the process of teaching and learning			
2. Assessment informs and improves the curriculum and assessment practices			
3. Assessment offers all learners an opportunity to show what they know, understand and can do			
4. Assessment helps learners understand what they can do and where they need to develop further			
5. Assessment practices are sensitive to gender			
6. Assessment practices are sensitive to abilities of learners.			
7. The key learning outcomes have been identified so that assessments made against these can be used to help develop learning			
8. Assessment is continuous			
9. Achievement data linked to curriculum outcomes			
10. Assessment decisions are based on pragmatic, trial-and-error grounds			
11. Assessment decisions are based on thinking through the purpose and principles of assessment			

	<b>Mirrors the statement</b>	<b>Room for improve ment</b>	<b>Does not mirror the statement/ requires re-thinking</b>
12. Assessment scores are used to promote learners to the next grade			
13. Sharing of assessment intentions with learners is routine practice, which enables learners to understand their role in assessment process			
14. Facts, applications and higher order thinking skills are assessed			
15. The criterion-referenced approach to assessment is undertaken			
16. Assessments are not restricted to tests only			
17. Assessment is always undertaken for a specific purpose			
18. The current requirements and guidance for statutory assessment are understood and followed			
19. A holistic and best-fit approach is used			
20. A range of assessment information is used in making judgements against expected levels of performance			
21. Learners are involved in assessing their own work			
22. Learners are involved in assessing the work of their peers			
23. Learners are provided with opportunities to reflect and talk about their learning and achievement			
24. A wide range of assessment methods are used confidently and appropriately			
25. Assessment informs daily and weekly planning			
26. Assessment allow learning to be matched to the needs of the learners			
27. Strategies are in place which reveals when pupils have difficulties or are not making progress			
28. Assessment information is used to decide what to do next with individuals, groups or the class.			
29. Portfolios are consistently used to confirm assessment judgements.			
30. Portfolios are built over a period of time and retained as visible proof of the development and improvement of learner achievement			
31. Prompt and regular marking occurs			
32. The marking process includes both verbal and written feedback			
33. Marking focuses on the learning intentions as the criteria for success			

	<b>Mirrors the statement</b>	<b>Room for improve ment</b>	<b>Does not mirror the statement/ requires re-thinking</b>
34. Marking strategies help the learners understand what they have achieved and what they need to do next			
35. The outcomes of marking, along with other information, are used to adjust future teaching plans			
36. Assessment achievement data communicated to learners clearly, accurately, timeously and meaningfully			
37. Reporting of results is both informal, namely dialogues in class and formal, namely written reports			
38. Assessment of learners' learning is reported to parents/guardians in a way which identifies achievements and what the learner needs to improve.			
39. The outcomes of assessment of learning activities provide feedback and feed forward for learners			
40. Assessment of learning information is used to evaluate teaching and for monitoring progress			
41. There is a whole-school agreed set of achievement information, which is recorded			
42. Beyond whole school records, teachers decide what to record			
43. Teachers use a range of recording strategies for additional records			
44. Progress against key learning outcomes is observed, noted and recorded			
45. Progress against key learning outcomes feed forward into future planning			
46. Learners are involved in recording comments on their work			
47. Parents are involved in recording comments on their children's work			
48. Records are useful, clear and easy to interpret			
49. Records enable reports to be written easily			
50. Reports outline strengths in all aspects of school life			
51. Reports indicate areas that need to be developed			

	<b>Mirrors the statement</b>	<b>Room for improve ment</b>	<b>Does not mirror the statement/ requires re-thinking</b>
52. Timing of reports allow appropriate discussion and action to take place			
53. Statutory requirements for reporting are met			
54. Core assessment data on each learner is updated each year and passed to the receiving teacher or school to aid future planning			
55. Moderation mechanisms are in place at School level Provincial level National level			

**PART B**

**WITH REGARD TO THE FOLLOWING STATEMENT, PLEASE PLACE A CROSS IN THE RELEVANT BLOCK YOU CONSIDER MOST APPROPRIATE AND EXPLAIN WHY (REASON) YOU INDICATED YES OR NO.**

**I use the following methods, approaches and techniques to assess learners:**

	<b>Yes</b>	<b>No</b>	<b>Reason</b>
1. Informal monitoring by observation			
2. Oral questions and answers			
3. Tests that I set alone			
4. Tests set by subject teachers			
5. Standardised external tests			
6. Interviews			
7. Learner self assessment			
8. Peer assessment			
9. Self-reporting			
10. Conferencing			

	Yes	No	Reason
11. Examinations			
12. Portfolios			
13. Journals			
14. Project work			
15. Assignments			
16 Observation sheets			

**PART C**

IT IS STATED IN THE NEW ASSESSMENT POLICY THAT ASSESSMENT SHOULD BE **ACCURATE, FAIR, MULTIDIMENSIONAL, VARIED, BALANCED, VALID, MANAGEABLE, TIME-EFFICIENT, BIAS-FREE, AND SENSITIVE TO GENDER, CULTURAL BACKGROUND, EHTNICITY AND ABILITY.** PLEASE COMPLETE THE FOLLOWING TABLE BY EXPLAINING HOW YOU ENSURE EACH IN YOUR ASSESSMENT PRACTICE.

	EXPLANATION
<b>Accurate</b>	_____ _____
<b>Fair</b>	_____ _____
<b>Multidimensional</b>	_____ _____
<b>Varied</b>	_____ _____
<b>Balanced</b>	_____ _____
<b>Valid</b>	_____ _____

	<b>EXPLANATION</b>
<b>Manageable</b>	<hr/> <hr/>
<b>Time-efficient</b>	<hr/> <hr/> <hr/>
<b>Bias-free</b>	<hr/> <hr/>
<b>Sensitive to:</b> <ul style="list-style-type: none"> <li>• <b>Gender</b></li> <li>• <b>Cultural background</b></li> <li>• <b>Ethnicity</b></li> <li>• <b>Ability</b></li> </ul>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

Any comments that you would like to add with regard to Part C?

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### PART D

**PLEASE ANSWER THE FOLLOWING THREE QUESTIONS WITH REGARD TO IMPLEMENTING THE NEW ASSESSMENT POLICY?**

**1. Do you think that you have the necessary knowledge and skills to implement the new policy? Please give reasons.**

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## Appendix K

### Interview Schedule 2 (pre-classroom observation)

1. What do you want to accomplish when you assess learners?
2. How do you assess learners?
3. How do you:
  - Generate evidence of achievement?
  - Collect evidence of achievement?
  - Evaluate this evidence?
  - Record the findings of the evaluation?
  - Use the findings?
  - Make assessment an on-going integral part of the learning process?
4. What assessment methods, new to you do you use?
5. From what you have learnt with regard to the new assessment policy, what are ways in which you changed your assessment practice?
6. What assessment tools do you think are successful in getting real time, authentic feedback about learners' achievement?
7. Name the type of assessment strategies that you used and worked?
8. Name the type of assessment strategies that you used but did not work?
9. Name the different types of assessment strategies that you would like to try in the future?
10. How do you ensure continuous assessment of learners?
11. Do you think that the policy's emphasis on continuous assessment is changing learning? How?
12. How do you feel assessment should be used?
13. How do you use assessment?
14. What are the main assessment methods you are using and why?
15. How often do you assess learners?
16. The policy advocates assessment that is criterion-referenced. Have you employed the "criterion-referenced" approach to assessment? Why and how? Do you find it useful? Explain further.
17. What do you see as the major obstacles to the "criterion-referenced" approach of assessment?

18. In your view, what is the most effective way to assess learners?
19. Do you assess learners in this way? If no, why not?
20. Do you think that the new way of assessing is making a difference in the way learners are taught? Explain further
21. What do you think that learners have learned as a result of the assessment exercise? How do you know/What demonstrates that they have learnt? How well have they learnt/What is the level of competence?
22. How do you come to a cumulative/summative judgement about learners' achievement?
23. How do you use learners' achievement information to assist the learner's development?
24. How do you use learners' achievement information to improve teaching and learning?
25. How do parents respond to the new ways of assessment?
26. What did you find rewarding in implementing the new assessment policy?
27. What were your frustrations in implementing the new assessment policy?
28. In what circumstances do you feel that the implementation of this policy is most likely to succeed?
29. The Review Committee on Curriculum 2005 reported that teachers struggled with issues on assessment. Will you please elaborate on this finding?
30. Are moderation mechanisms in place at school, provincial and national levels? Explain.
31. Is there anything else you would like to tell me about on the implementation of the new assessment policy that I haven't asked you about?

## Appendix L

### Classroom Observation Protocol

**Teacher:**

**School:**

**Date:**

	Lesson 1		Lesson 2		Lesson 3		Lesson 4		Nature of use
	Yes	No	Yes	No	Yes	No	Yes	No	
<b>Purpose of assessment made clear to learners</b>									
<b>Learners involved in the assessment</b>									
<b>Clearly defined outcomes assessed</b>									
<b>Who assesses? Teacher, self, peer,</b>									
<b>What is assessed? Facts</b>									
<b>Application of knowledge</b>									
<b>Higher order thinking skills</b>									
<b>Attitudes</b>									
<b>Values</b>									
<b>Criterion-referenced approach used</b>									
<b>Informal monitoring by observation</b>									
<b>Oral questions and answers</b>									
<b>Formal use of tests set by teacher</b>									
<b>Formal use of tests set by subject teachers</b>									
<b>Formal use of standardised external test</b>									
<b>Examination</b>									
<b>Interviewing</b>									
<b>Self assessment</b>									
<b>Peer assessment</b>									
<b>Self-reporting</b>									
<b>Conferencing</b>									

	Lesson 1		Lesson 2		Lesson 3		Lesson 4		Nature of use
	Yes	No	Yes	No	Yes	No	Yes	No	
<b>Portfolios</b>									
<b>Journals</b>									
<b>Project work</b>									
<b>Assignments</b>									
<b>Observation sheets</b>									
<b>Assessment data recorded orally</b>									
<b>Assessment data recorded in writing</b>									
<b>Achievement data communicated to pupils verbally and in writing</b>									
<b>Achievement data communicated to pupils clearly</b>									
<b>Achievement data communicated to pupils accurately</b>									
<b>Achievement data communicated to pupils timeously</b>									
<b>Achievement data communicated to pupils meaningfully</b>									
<b>Achievement data used to praise learners</b>									
<b>Achievement data used to identify strengths and weaknesses</b>									
<b>Achievement data used to support those learners requiring help</b>									
<b>Achievement data used to plan/ improve teaching</b>									

COMMENTS:

## Appendix M

### Analysis of Teacher and Student Documents and Records

<b>Criteria</b>	<b>Test Books of learners</b>	<b>Reports of learners</b>	<b>Other written records of learners e.g.</b>	<b>Portfolios</b>	<b>Mark book of teachers</b>	<b>Other assessment records kept by teachers</b>	<b>Comments</b>
Facts/memorisation of information assessed							
Clearly defined outcomes							
Application questions							
Higher order thinking skills							
Criterion-referenced							
Norm-referenced							
Achievement data linked to curriculum outcomes							
Integration of knowledge, concepts and skills							
Marking is prompt and accurate							
Results recorded in writing							

<b>Criteria</b>	<b>Test Books of learners</b>	<b>Reports of learners</b>	<b>Other written records of learners e.g.</b>	<b>Portfolios</b>	<b>Mark book of teachers</b>	<b>Other assessment records kept by teachers</b>	<b>Comments</b>
Comments included by Teacher Learner Principal/HOD Parent							
Cumulative evidence recorded							
Records include information on the development of values, attitudes and social development							
Results communicated clearly							
Results communicated timeously							
Results communicated meaningfully							
Results used: To assist learners development, Improve learning, Improve teaching							

COMMENTS

## Appendix N

### Contact Summary Form

**Contact type:**

**Visit:** \_\_\_\_\_

**Site:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ (with whom)

**Contact date:** \_\_\_\_\_

**Written by:** \_\_\_\_\_

**Today's date:** \_\_\_\_\_

1. With whom did you meet?
2. What were the main issues or themes that struck you in this contact?
3. Summarize the information that you got (or failed to get) on each of the target questions you had for this contact?
4. Anything else that struck you as salient, interesting, illuminating or important in this contact?
5. What new (or remaining) target questions do you have in considering the next contact with this site?

### CONCERNS OF THE RESEARCHER AND EDUCATOR

**Appendix O**

**Document Summary Form**

**Site:** \_\_\_\_\_

**Document number:** \_\_\_\_\_

**Date received or picked up:** \_\_\_\_\_

**NAME OR DESCRIPTION OF DOCUMENT:**

**EVENT OR CONTACT, IF ANY, WITH WHICH DOCUMENT IS ASSOCIATED:**

Date:

**SIGNIFICANCE OR IMPORTANCE OF DOCUMENT:**

**BRIEF SUMMARY OF CONTENTS:**

Note: If document is central or crucial to a particular contact (e.g., a meeting agenda discussed in an interview, etc) make a copy and include with write-up. Otherwise put in document file.

## Appendix P

### Contextual Information on the School

*The observation checklist will be used in order to collect contextual information on the school for the purpose of compiling the school profile and providing the reader with a thick rich description of the case study school.*

*To be completed by the researcher/teachers in the school*

**PLEASE FILL IN OR PLACE A TICK IN THE APPROPRIATE COLUMN**

#### 1. Type of building

1. Building designed as school	
2. Prefab	
3. Teacher training college	
4. Other (specify)	

#### 2. School building

1. Number of blocks	
2. Number of storeys	

#### 3. Condition of school and furniture

	Type of structure: Specify (e.g., brick wall, tile roof, etc)	No maintenance needed	Need maintenance	Need maintenance & structural repair	Beyond repair
1. Roof					
2. Windows					
3. Doors					
4. Walls					
5. Furniture					
6. Floors					
7. Toilets					
8. Ceilings	Fitted	Not fitted			
9. Other (specify)					

**4. Number of toilets for teaching/administrative staff**

1. Male staff	
2. Female staff	
3. Out of order	

**5. Number of toilets for learners**

1. Males	
2. Females	
3. Out of order	

**6. Power and energy supply**

1. Wired & supplied with electricity	
2. Wired but not supplied with electricity	
3. Not wired and/or & no electricity available	
4. Generators	
5. Other (specify)	

**7. Overall condition of building**

Very weak (not suitable for occupation)	Weak (structure needs attention)	Needs paint & minor repairs	Good condition	Excellent, no foreseeable repairs

**8. Safety**

1. Building is completely fenced with security at the entrance	
2. Building is completely fenced without security at the entrance	
3. Building has been fenced but fence is damaged	
4. No fence	
5. Other (specify)	

**9. Office space**

	<b>Adequate</b>	<b>Inadequate</b>	<b>None</b>	<b>Estimated shortfall number</b>
1. Offices for management				
2. Offices for admin staff				



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