

## 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.