

**AN INVESTIGATION INTO THE SCHOOL AND
CLASSROOM FACTORS THAT CONTRIBUTE TO
LEARNERS' PERFORMING POORLY IN GRADE 4
IN A PRIMARY SCHOOL IN KWAZULU-NATAL**

BY

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DECLARATION

I hereby declare that this dissertation, unless specifically indicated to the contrary, is my own original work. It has not been submitted for a degree at any other institution.

Ntombizonke Irene Khoza

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ABSTRACT

This study was undertaken to investigate the school and classroom factors that contribute to the poor performance of learners in Grade 4 in Mathematics, English and Natural Science. It was conducted in a rural primary school in the Msinga area, in the province of KwaZulu-Natal. This is an African school serving a working-class community.

This study was located within the qualitative research paradigm. It was a case study based on participant observation. Three educators were observed for five days each. Data were collected via three methods: by observations in classrooms and other school settings, semi-structured interviews and by questionnaires eliciting professional biographical details. The study was informed by literature on effective schools and teachers, Bernstein's concepts of classification and framing and Morais' application of Bernstein's work to analyse the teachers' practises at the micro level of the classroom.

The main findings of the study were that the following school and pedagogic factors contributed to the poor performance of learners:

- poor organisation and use of instructional time;
- ineffectiveness of the school management team;
- lack of explicit evaluation criteria given by the teacher;
- the slow pacing of knowledge facilitated by the teacher;
- the strong hierarchical social relations between teachers and learners;
- the strong boundaries separating the subjects.

This study recommends that the Department of Education attend to the upgrading of teachers' content and pedagogical knowledge. There should be support teams that monitor the progress of the educators in acquiring deeper subject knowledge and the relevant pedagogy that will enable them to teach their subjects effectively. This will give the learners better education and improved opportunities in life.

LIST OF ABBREVIATIONS

C2005	Curriculum 2005
C	Classification
DE	Diploma in Education
DoE	Department of Education
F	Framing
ID	Instructional Discourse
LA	Learning Area
LTSM	Learning and Teaching Support Material
MLA	Monitoring Learner Assessment
NDOE	National Department of Education
NQF	National Qualifications Framework
OBE	Outcomes-Based Education
OECD	Organisation for Economic Co-operation and Development
PEI	President's Education Initiative
RD	Regulative Discourse
RNCS	Revised National Curriculum Statement
TIMSS-R	Third International Mathematics and Science Study-Repeat

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CHAPTER 1

INTRODUCING THE STUDY

1.1 INTRODUCTION

The poor performance of South African learners has been highlighted in national and international studies. Various studies concerning classroom-based research have been carried out in South Africa since the introduction of the democratic government. International and national studies show that South African learners are performing very poorly. It is therefore my intention to interrogate the causes behind this dilemma.

The discussion starts with a brief historical background of South African education and the policy context. This is followed by the purpose of the study, the research design and the questions which this study aims to answer. Towards the end of this chapter there is a brief summary of the structure of this dissertation.

1.2 HISTORICAL BACKGROUND

Studies conducted in South Africa during the period 1998 – 2002 suggest that learners' scores are far below what is expected at all levels of the schooling system, both in relation to other countries and in relation to the expectations of the South African curriculum.

South Africa participated in two international comparative studies, the Third International Maths and Science Study-Repeat (TIMSS-R, 1999) and the Monitoring Learner Assessment (MLA, 2000) study. The Third International Mathematics and Science Study (TIMSS-R, 1999) was conducted in 38 countries across the world (Howie, 2001). The study investigated the concepts, processes and attitudes regarding mathematics and science learnt by Grades 7, 8 and 12 South African learners. The TIMSS-R used the 'old' South African curriculum, Nated Report 550, because Curriculum 2005 had not been implemented in Grade 8 at the time of the

TIMSS-R (Taylor et al., 2003). The findings indicated that the South African mean scores for Mathematics and Science were below the mean scores of all participating countries including two African countries, Morocco and Tunisia (Taylor et al., 2003). None of the South African pupils achieved the International Top 10% benchmark, in Mathematics and Science.

The Monitoring Learner Assessment (MLA, 2000) study was commissioned by the National Department of Education, which participated for the first time in the Joint International Unesco-Unicef Monitoring Learner Achievement Project (Chinapah et al., 2000). More than 10 000 Grade 4 learners participated in the South African study. Learners scored an average of 30% for numeracy, which was the lowest of the 12 countries; the literacy mean was the fourth lowest of the 12 countries and in life skills the mean score was the second lowest of the 12 countries (Taylor et al., 2003). In both studies (TIMSS and MLA) South African learners performed well below their counterparts.

Recent research evidence in the country has revealed high levels of under-performance, particularly among South African learners at schools in rural areas (Howie & Hughes, 1998; Joint Education Trust, 2000; 2001; Department of Education, 2002c; Smith, 2004). Studies have shown that ‘many Grade 6 learners are not able to perform mathematics and reading tasks expected at the Grade 3 level’ (Joint Education Trust, 2001 p.3). In 2004 the Western Cape Education MEC announced that the results of systemic literacy and numeracy tests administered to Grade 6 learners in the Province (Western Cape Education Department’s systemic evaluation of grade 6) showed a clear relationship between poverty and achievement – “the poorer pupils, the more likely they were to lag” (Smith, 2004 p.9).

Taylor et al. (2003) conducted a study in order to investigate factors which influence learner performance. From the eight large-scale studies undertaken in South Africa, the following contextual factors were identified:

- education level of parents or community
- parental income or household wealth
- settlement type

- family structure
- gender
- language and language of instruction

The research-based data produced on South African schooling since the early 1990s, read in the context of the International school-improvement research, has therefore left us with a clearer, richer and more grounded picture of schooling.

1.3 THE POLICY CONTEXT

The year 1990 was a critical year for educational change in the country. Before 1990 the apartheid state managed a racially-stratified education system. In the 1950s the education of black children was mainly the responsibility of mission schools run by the churches (Bertram et al., 2000). With the introduction of Bantu Education in 1953 most mission schools were closed down, and black children had to attend government schools which were to ‘teach the Africans to accept their proper place’ (Bertram et al., 2000 p.76). The government felt that it was important to instil respect for Christian values and for the nation in all learners. Education was a form of social control to reinforce the government’s policy of separate development (Bertram et al., 2000). The government spent much more money on white learners than on black learners, and the education resources offered to the latter were inferior and unequal. These inequalities were the result of different education systems that were intended to serve to prepare different race groups for the different status and positions they were to occupy later in their lives. The curriculum has been described as racist, sexist, Eurocentric, authoritarian, prescriptive, context-blind and discriminatory (Jansen, 1999).

By the 1970s teachers were being trained in racially separate colleges and universities (Sayed, 2004). Each type of college and university trained teachers of different races for schools for different races. The quality of teacher education for Africans was deliberately inferior to that of Whites. Enslin (1988) argues that the majority of teachers in South Africa, and the vast majority of Black teachers, continue to be products of Bantu Education (*idem*: 67). The curriculum, allocation of state resources, training of teachers and their posting to racially-segregated schools were instrumental in perpetuating race and class stratification. In the 1980s and early

1990s different groups, some of which were the National Education Co-ordinating committee (NECC), the Private Sector Education Council (PRISEC), Non-Governmental Organisations (NGOs) and A New Curriculum Model for South Africa (CUMSA), who were involved in the struggle against apartheid, attempted to introduce 'alternative curricula' such as People's Education, but the state curriculum remained the dominant one in schools.

After the general elections of 1994, and with the election of the African National Congress (ANC) into government, the focus was on education once again, although the aims were radically different. The old syllabi were clearly unacceptable and could no longer be allowed to continue unchanged. Clearly some sort of interim solution was required (Bertram et al., 2000). The Department of Education produced a White Paper on Education and Training (1995) which called for educational reform that would address the imbalances of the past. This educational reform was driven by the need to "increase access, promote democratic governance, achieve redress and ensure equity, efficiency and quality" (Chamane, 2006).

Between July 1995 and June 1996 Outcomes-Based Education (OBE) was adopted as the essential framework of the new school curriculum. In July 1996 a key document called *Curriculum Framework for General and Further Education* (DoE, 1996b) spelt out the proposal for outcomes-based education. This document provided details of the eight learning areas. In March 1997, the Minister of Education, Professor Bhengu, officially launched C2005, the new school curriculum. He announced that the new curriculum would be introduced in Grades 1 and 7 in January 1998 (this was later amended to Grade 1 classrooms only). The curriculum was called Curriculum 2005 (C2005) because this was the year by which it would be implemented in Grades 0 – 9. C2005 was informed by three principles which were outcomes-based education (OBE), learner centredness and integration. C2005 was implemented in Grade 1 in 1998, Grade 2 in 1999 and Grade 3 in 2000 (Chisholm, 2000).

While ex-model-C schools were able to implement C2005 successfully, disadvantaged schools 'floundered' (Harley & Wedekind, 2004). Many poor rural schools failed to implement the new curriculum (Vally & Spreen, 1998). Malcolm (1999) describes the situation as a "voyage of faith" where teachers were sent out

with the hope that they could meet the challenges of implementing a new curriculum in an under-resourced system without support (Harley & Wedekind, 2004 cited in Chisholm, 2004).

In 1999, when C2005 was in its second year of implementation, Professor Kader Asmal became the Minister of Education. The Minister appointed a committee to review C2005 to determine whether there was progress and to identify any challenges experienced since the implementation of OBE in the GET band. The implementation of C2005, was characterised by “enormous infrastructure backlogs, resource limitations, inadequate supply of quality learning-support materials and absence of common national standards for learning and assessment” (DoE, 2003). Teacher unions cited such issues as inadequate training provided to teachers, an acute shortage of teachers, as well as lack of learner support material that were believed to be hampering the implementation of C2005.

The Review Committee found that, from the start, the process of implementation had been attended by grave difficulties (Sineke, 2004). “Despite enormous political will and effort, social demands were seemingly not matched by financial, physical and human capacity in the system to implement the new curriculum according to schedule” (Review Committee, 2000 p.3). Many learners did not participate fully in the learning process since teachers were still providing a great deal of direct instruction and were still preoccupied with content coverage. This resulted in learners’ abilities not being developed. The Review Committee found that the implementation process of C2005 had come to be confounded by, among other factors:

- lack of alignment between curriculum and assessment policy;
- inadequate orientation, training and development of teachers;
- learning support material that was variable in quality, often unavailable and not sufficiently used in classrooms;
- shortages of personnel and resources to implement and support C2005;
- inadequate recognition of the curriculum as the core business of the department of education (*Report of the Review Committee on C2005, 2000*).

The Review Committee recommended that the curriculum be streamlined and strengthened. In November 2000, the Minister appointed a Ministerial Project Committee to manage the streamlining and strengthening of C2005 for grade R-9. The Revised National Curriculum Statement (RNCS) for grade R-9 became policy in April 2002. The basic principles of the curriculum, OBE, learner-centredness and integration remained constant. It was this policy that was due for implementation in the Intermediate Phase in January 2005, when this study was undertaken.

1.4 THE PURPOSE OF THE RESEARCH

This study was prompted by the grade 4 results in the school where the researcher was employed. In the year 2004 I observed that the Grade 4 learners in the school repeatedly performed poorly in Mathematics, English and Natural Science. As the head of department in the intermediate phase, I became interested in finding out what the reason for this could be. I decided to research the factors that contributed to learners' performing poorly in these subjects, as successful performance in these key learning areas was necessary for further and higher education.

The table below illustrates learners' achieved scores for 2001, 2002 and 2003 in Mathematics (M), English (E) and Natural Science (N).

Table 1. Learners' achieved scores: 2001, 2002 and 2003

Year	2001			2002			2003		
No. of Learners	35			38			41		
Learning Area	M	E	N	M	E	N	M	E	N
Keys: 4	4	5	5	3	7	4	10	8	5
3	11	9	12	12	12	14	10	10	19
2	13	13	11	17	11	14	15	14	10
1	7	8	7	6	8	6	6	9	7

Definition of keys:

4 – (70% - 100%) Outstanding ability is continuously demonstrated.

3 - (40% - 69%) Much of the knowledge, skills, and values demonstrated.

2 - (35% - 39%) Some of the knowledge, skills and values demonstrated, others are lacking

1 - (1% - 34%) Few skills and very little knowledge and values demonstrated.

Description of the table:

Table 1 summarises the performance of learners in Maths, English and Natural Science across three years: 2001, 2002 and 2003. In 2001, 20 of the 35 learners failed mathematics - 7 had few skills and very little knowledge in mathematics and 13 had some knowledge and skills and lacked others. The results in English were similar - 21 out of the 35 learners failed the subject in 2001. Eighteen of the 35 learners failed Natural Science in 2001. More than 50% of the learners failed these subjects in 2001.

In 2002, 23 of the 38 learners failed mathematics - 6 had few skills and very little knowledge in mathematics and 17 had some knowledge and lacked knowledge in other areas. In English, out of the 38 learners, 19 failed, with 8 learners getting below 34% and 11 learners getting below 39%. 20 of the 38 learners failed Natural Science in 2002. Again in 2002, more than 50% of the learners failed these three subjects. Likewise, in 2003, 21 of the 41 learners failed mathematics - with 6 revealing few skills and knowledge and 15 revealing some of the knowledge and lacking others. The results in English were worse as 23 of the 41 learners failed. 9 had few skills while 14 had some skills, even though others were lacking.

The table below gives a better presentation of the percentage of failure across the three years:

Table 2: Percentage of failure

Year	Mathematics	English	Natural Science
2001	57%	60%	51%
2002	61%	50%	53%
2003	52%	56%	41%

The above table shows that learners were performing poorly in Mathematics, Natural Science and English. More than half the class failed in Mathematics in 2001, 2002 and 2003. The results were the same for English. In Natural Science the failure

rate decreased from the fifties to 41%. The poor performance of learners in these subjects eventually leads to the high failure rate of learners in the matriculation examination, where this becomes a concern to all stakeholders: parents, employers, institutes of higher education and the state. With this study I attempted to understand the factors that contribute to poor learner performance.

1.5 DESIGN OF THE STUDY

A case-study method based on participant observation was used. Three educators were observed for five days each in one Grade 4 classroom. The teachers were observed teaching Mathematics, English and Natural Science. Semi-structured interviews and questionnaires also formed part of the design of the study. The teachers were assured that they would remain anonymous. The school would be known as School X and the educators would be named as Educator M (Maths), Educator E (English) and Educator N (NS).

The focus of the study was to investigate the school and classroom factors that contributed to learners' performing poorly. The school where the researcher was employed was in a rural area, and therefore the study was conducted in another school in a rural area in order to identify the factors which she thought would also apply to her school.

The outcome of this research was informed by the following main question:

What school and classroom factors contribute to learners performing poorly in grade 4?

Sub-questions:

- What school organisation factors contribute to learners' performing poorly?
- What pedagogic practices of teachers contribute to learners' performing poorly?

It was hoped that this study, although it would be limited, would provide a basic understanding of why learners performed poorly.

1.6 STRUCTURE OF THE THESIS

At the beginning of this chapter some of the studies that had been conducted both internationally and nationally concerning learner performance were described. This was followed by a description of changes in the education system in the context of South Africa's transition to a more democratic and more equitable society. The focus of this research was also highlighted. The purpose of the study, the research design and the research question were also stated. The chapter ends with a brief description of the structure of the thesis.

Chapter 2 outlines a review of relevant literature. The study was informed by the literature on effective schools and teachers and also Bernstein's work (1971; 1996). In Chapter 3 the conceptual framework is presented. Bernstein's concepts of classification and framing (1982; 1996) and Morais' (2002) application of Bernstein's work to analyse the teachers' practices at the micro level of the classroom, are explained. These concepts have been used to analyse teachers' practices in chapter 5. In Chapter 4, which is on the methodology used, the procedures and strategies that have been applied in the study are outlined. In Chapter 5 an analysis of the data is presented. The socio-economic context of the school is described, which includes the surroundings, the resources and other related issues. This is followed by educator profiles of the educators who were observed. A formal analysis is also presented with indicators that describe educator practices at School X.

In Chapter 6 it is argued that, notwithstanding the poor socio-economic background of the learners that undoubtedly contribute to learners' poor performance, school organisational factors and teachers' pedagogic practices contribute substantially to the poor performance of learners.

In Chapter 7 the study is concluded by a discussion of an overview of the study, the implications of the findings for teachers, for students' chances in life, the limitations of the study, the recommendations that could improve learner performance and issues for further research.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, the literature that is related to the present study is reviewed. The purpose of the review is to locate the present study in the work already done by other researchers. The researcher's interest was defined in Chapter 1, as an investigation into the school and classroom factors that contributed to learners' performing poorly.

The review of literature related to this study was divided into two sections. The first section attempted to review the literature on school effectiveness. The second section focused on Bernstein's work that had a bearing on the topic of this study.

2.2 SCHOOL EFFECTIVENESS

Most current definitions of school effectiveness focus on student outcomes and on the concept of value added by the school (McPherson, 1992). This focus implies that a school's performance is to be judged not on results alone but on the school's contribution to these results. The definition adopted by an international study of the quality in schooling by the Organisation for Economic Co-operation and Development (OECD) encapsulates these elements:

An effective school is one that promotes the progress of its students in a broad range of intellectual, social and emotional outcomes, taking into account socio-economic status, family background and prior learning (Chapman, 1991, p.1) as quoted in Wyatt, 1996.

A study by the Australian Council for Educational Research (ACER) on the perceptions of what constitutes an effective school, found that rather than the narrow concentration on test results in literacy and numeracy commonly found, Australian school communities value the following factors more highly:

- Development of a positive self-concept

- Positive relationship with learning
- The preparation of the student for the next stage of learning (McGaw, et al., 1992).

However, the bulk of current school-effectiveness research accepts an operational definition of an effective school as one in which the students progress further than what might be expected from the socio-economic background of the learners (Mortimer, 1991). Hill (ibid) notes that the high-performing schools have a high level of consciousness and awareness of all aspects of the operation of the school and the ways in which the different elements interact. They are, according to Hill, critically reflective, open to external evaluation, (they) routinely measure and monitor their performance and functioning, continuously seek opportunities for improvement and automatically take corrective action in system malfunctioning.

It is evident from the brief outline of the effectiveness research literature provided above that there is no simple or single blueprint for success, and each school will need to construct its own path. Nevertheless, Hill (1995b, p.12) argues that:

- schools, and especially teachers really do make a difference – ‘it is not so much what students bring with them, but what they experience on a day-to-day basis in the classroom that really matters’.

More specifically, Hill (ibid: 9-10) informs us that:

- there is considerable evidence that structured teaching makes a positive difference. Structured teaching involves clear learning objectives ... Structured teaching does not imply old-fashioned teaching, since it can occur within a modern, constructivist approach to teaching ... and is indeed what is found at the core of many successful programmes.
- for the importance of effective learning, time or, as is more commonly known ‘time on task’ should be used effectively.

Hill (undated) further notes that, ‘... there are strong empirical grounds for believing that schools and teachers *can* and *do* make a difference, and that consistent, high-quality classroom teaching can deliver dramatic improvements in student learning’.

Hill (ibid) has developed a general design for improving learning outcomes which include interconnected and interdependent elements, some of which are:

- *Classroom teaching strategies.* The key factor behind this variation tends to be the high expectation of student achievement, engaged learning time and structured teaching focused on the learning needs of students.
- *Leadership and coordination.* The consistent and continuing support of leadership is critical to the success of the whole school design.
- *School and class organisation.* The organisation of the school can help or hinder learning (Hill ibid).

The challenge is, according to Hill, to translate the strategic intentions and general design elements into school-level action appropriate to the local circumstances that apply.

Lockheed and Levin (1993) focus on school factors that appear to be associated with lower or higher gains than expected in student achievement. These studies were carried out in developing countries. Results indicated that schools do have a major effect upon children's development and that schools do make a difference. Lockheed and Levin (1993) agree with Hill (8) that schools can make a difference in learning. The difference that schools make depends on the *opportunities to learn* provided by the school. The concept of the *opportunities to learn* (OTL) is underpinned by the assumptions that a major cause of inequalities in student academic performance is inequalities in content taught, in quality of instruction, in time allocated to subject areas, in adequate institutional resources and in assessment practices (Green & Naidoo, 2006). Reeves and Muller (2005) argue that lower SES learners perform poorly in Maths because of a lack of opportunities at school to learn much of the prescribed content in sufficient depth and at an appropriate pace. Learners do badly because content coverage is poor, because they have not been taught grade-specific content and the pacing is too slow. Learners therefore fall behind and have gaps in their knowledge. Dreeben (1987) argues that differences in student outcomes are almost entirely explained by the quality of instruction the student received. Alexander and Pallas (1984) have found that students who are exposed to a more demanding curriculum reach higher levels of achievement.

Rich, challenging curricula, according to Darling-Hammond (2000 p.66), are curricula which are focused on “problem-solving, thoughtful examination of serious texts and ideas or assignments requiring frequent and extended writing”, and which “give students opportunities to integrate ideas across fields of study ... opportunities to think, write, create and develop projects.” A consistent empirical finding in the OTL literature is that learner achievement is related to the content and skills that are made available to learners in the classroom.

A review of the international school-effectiveness literature undertaken by Sammons, Hillman and Mortimore (1995) found that although approaches to education differ from one country to another, successful schools have distinctive features in common. Some of these features are home-school partnership, purposeful teaching, a learning environment, shared vision and goals, professional leadership and others. MacGilchrist, Myers and Reed (1997) also support Sammons et al.s’ idea by saying that there are three essential core characteristics of an effective school, which, if present, can help to create the right conditions to enable schools to become effective institutions in terms of their pupils’ progress and outcomes. These characteristics are as follows:

- *high-quality professional leadership and management*
- *a focus on teaching and pupil learning*
- *the development of a learning culture within the organisation.*

However, it is necessary to pay closer attention to the issue of teacher effectiveness for there to be significant advances in our understanding of what makes schools effective. Darling-Hammond (2000), Hoadley (2005) and Macbeath (2001) stress that teacher quality, including qualifications, has a positive effect on the performance of learners. Hoadley (2005) argues that teacher qualifications alone do not give an idea of what it is that a qualification enables teachers to do, although they are implicitly related to teacher knowledge.

Studies in Australia (Wyatt, 1996) have found that the key to improved educational outcomes for students is teacher effectiveness and that a given school is likely to be only as effective as the quality of classroom teaching within that school. This study reinforces the notion that teacher and classroom variables account for more of the

variance in pupil achievement than school variables. 'Learning takes place in classrooms through the interaction of students and their teachers' (Schooling issues digest, 2004). This study also mentioned teachers' subject knowledge as an important factor influencing learner outcomes. Writers also argue that successful teachers tend to be efficient and well organised. They are clear about the purpose of their lessons and they structure their lessons, taking into consideration the differences in students' learning styles and use appropriate strategies. In many cases this requires flexibility on the part of the teachers and a willingness to adapt their teaching style.

The importance of teachers is also seen in the *Meeting Our Collective Commitment report* (2000), where it is stated that teachers are essential players in promoting quality education, whether in schools or in more flexible community-based programmes. They are advocates for and catalysts of change. No education reform is likely to succeed without the active participation and ownership of teachers. MacBeath (2001) argues that the individual classroom and the individual teacher provide a useful starting point for examining effectiveness. They say that what most of the research appears to agree on is that teacher effects are powerful and that they are not limited to the period of time which pupils spend with that particular teacher. It is important when thinking about school effectiveness to think about teachers, as they are the key people who can make things happen.

In a comparative study between South Africa and Australia, Malcolm (as quoted in Davey, 2006), posited that none of the outcomes-based education operating around the world "seeks to deliver the curriculum to schools as a final product: intentionally they leave the final development to teachers - the agents who are closest to learners, who work at the critical interface of teaching, learning and assessment" (Sayed & Jansen, 2001).

Ensor (1999) and Ensor and Hoadley (2001) argue that teachers teach in the way in which they were taught. The only difference is that they select lesser tasks and use lower levels of specialisation. Ensor questions whether teachers, while they were still students, were given the opportunity to develop 'generative principles' (Dowling, 1998) or 'recognition and realisation rules' (Bernstein, 1990) to help them recognise 'best practice' and put it into practice (Ensor & Galant, 2004).

The other point that Christie (2001) mentions is the importance of the structures and that they cannot be overlooked when studying the ethos of the school. These structures include the School Management Teams (SMTs). Hill (ibid 14) argues that the policy makers should always be on the look-out for opportunities to build the capacity of school leaders for improvement and change, since school leaders have a critical role to play in driving reform. As Hill puts it, only they have the authority to bring about the degree of transformation required, and the capacity to maintain an overview of various elements and ensure that each is operating effectively and in alignment with all other elements. The SMTs must make the resources available for teachers, thereby supervising the teachers and checking the progress of children in the school.

The school management teams are able to address successfully some of the problems that they face, for example, the poor performance of learners, if they are able to harness energies within the school and draw what resources they can from their immediate communities.

2.3 BERNSTEINIAN STUDIES

Bernstein (1990) understands that one important cause of educational failure or pedagogic failure is the official transmission system of the school. His project was focused on 'how to prevent the wastage of working-class educational talent' (Sadovnick, 2004). The researcher found Bernstein's concepts very helpful since she was investigating the school and classroom factors that contribute to the poor performance of learners in a rural primary school. Bernstein (1971) argues that the language orientations of working and middle-class learners influence their success at school. The language of working-class children is 'context specific', meaning that it is locked into specific relationships in particular social situations, and is predictable. Because it is context specific, Bernstein calls it a 'restricted code'. This is contrasted with the middle-class language, in which meaning is more abstract and universalistic, which he calls the 'elaborated code'. The elaborated code refers to the prioritising and deployment (recognition and realisation) of context-independent meanings and restricted codes refers to context-dependent meanings. One of the main studies exemplifying this was an experiment designed by Bernstein (1977) and performed by Holland (1981).

In the Holland (1981) experiment two groups of seven-year-old children from the same school, one from middle-class homes and the other of working-class origin, were shown pictures of different foodstuffs and were asked to group them in any way they wanted. They were asked to give reasons for their grouping. They were also asked to group the food a second time, and again provide criteria for their grouping. The experiment showed that working-class children generally used criteria drawn from their own life context (context-dependent) as a principle for classification (e.g. 'I like those things'; 'That is what mother cooks for breakfast'), which also referred to everyday knowledge. Their sorting did not change the second time, thus demonstrating a single-coding orientation which is a restricted code. Middle-class children responded to the task firstly by referring to general principles (e.g. food category), which is non-context dependent. In a second grouping they referred to more personalised, local meanings. They demonstrated two coding orientations, both elaborated and restricted coding.

The problem that was raised in this research was that the middle-class children, because of their home background, were exposed to a variety of resources like books, computers, magazines and other sources of information and this gave them entry to what Bernstein (1971) calls the 'school code'. Bernstein defines the school code as the uncommon sense of knowledge or the official knowledge that is learnt at school. The working-class children, also because of their home background where they do not have access to the sources of information, have the 'community code'. Bernstein defines the community code as everyday knowledge or common-sense knowledge that is locally shared.

Other experiments were conducted (e.g. Adlam et al., 1977) and different coding orientations were attributed to different social-class groupings. It was argued that the focus of the child's selection were not a function of the child's cognitive power, but rather of a difference in the recognition and realisation rules used by the children to read particular contexts, make selections and realise a particular text.

Bernstein's theory was criticised for presenting a deficit theory, for arguing that working-class children were deficient. Bernstein (1996 p.182) rejected his interpretation, explaining that 'codes arise out of different modes of social solidarity,

in the process of production, and differentially acquired in the process of formal education’.

Taylor et al. (2003) argue that education tends to reinforce the coding orientations that middle-class children bring to school. They see middle-class children as having their school-code orientation being reinforced and amplified. Working-class children are seen as having a community code, meaning that they have a far greater distance to travel to acquire the school-language code orientation which matches the school knowledge.

In her study, Hoadley (2005) compared teachers from working-class schools with teachers from middle-class schools in terms of whether teachers act as interrupters and amplifiers of the school code and interrupters of the community code. The findings showed that teachers from the middle-class schools seemed to be amplifiers of the school code and interrupters of the community code. On the other hand, teachers from the working-class schools seemed to be the amplifiers of the community code instead of being interrupters of this code (Hoadley, 2005). Her focus here was on teachers’ practices in the classroom. In this study, teachers were also observed in order to find out what their practices in the classrooms were.

In this chapter the researcher looked at some of the studies that have been conducted in relation to her field of study. In the next chapter the conceptual framework that has been used to analyse this study is discussed.

CHAPTER 3

CONCEPTUAL FRAMEWORK

3.1 INTRODUCTION

This chapter sets out the analytical framework that informs the study and that is used to analyse teachers' practices in chapter 5. In this study, the researcher focuses on the poor performance of learners in a rural school. Bernstein's concepts (1971; 1996) provide the internal language for the study. The work of Bernstein is widely noted for its usefulness in providing tools for analysis of contemporary changes in education (Harley & Parker, 1999; Bernstein & Solomon, 1999). Harley & Parker (1999) note that while Bernstein's work can be applied to many educational settings, the scale and speed of change in South Africa makes the theory resonate evocatively.

Bernstein's classical statement:

“How a society selects, classifies, distributes, transmits and evaluates the educational knowledge it considers to be public, reflects both the distribution of power and the principles of social control” (Bernstein, 1971 p.47),

is one of his well-known statements on the nature of the relationship between curriculum and politics. In attempting to understand why working-class children in Britain perform poorly in schools, Bernstein directs attention to the inequalities in the recontextualisation of knowledge into pedagogic communication in different social-class schools. To this end he theorises that descriptions of pedagogic communication in terms of their classification and framing modalities would enable analysis of their inequalities.

Bernstein uses an interactionist perspective to demonstrate how school processes at the micro-level result in the reproduction of social stratification at the macro level. Since the researcher was researching the pedagogic practices of three teachers at the micro level of the classroom, Bernstein's concepts such as classification and framing were used.

3.2 CLASSIFICATION AND FRAMING

Bernstein's concepts of 'classification and framing' were used because they provided an internal language for the description of pedagogic discourse. By internal language is meant a conceptual language that directs both observation and analysis. In this study, the concept of classification (c) was used to analyse 'power relations' and the concept of framing (f) to analyse 'control relations'. They will be used to find out about teacher practices in the classroom and their influence on learner performance.

These two concepts were useful in generating a general characterisation of pedagogy. Classification and framing tell us about the organisational and interactional aspects of the transmission; about *what* (is transmitted) and *how* (it is transmitted). The focus is therefore on the *power relations* in defining categories of knowledge (classification) and *control relations* in defining the interactional dimension of pedagogy (framing).

For this research project the researcher relied on Morais' (2002) view that a mixed pedagogic practice with strong or weak values of classification and framing are essential conditions for learning. According to Morais (2002),

'...while weak classification and framing are an essential condition for learning at the level of pacing, for hierarchical rules, for knowledge relations (interdisciplinary, intradisciplinary, academic-non-academic), and for relations between spaces, they are less so at the level of selection (at least at the macro level) and certainly at the level of evaluation criteria' (p 560).

Based on Morais (2002), the essential conditions for learning and good performance by learners are weak classification and framing of pacing, hierarchical relations, knowledge relations and between spaces; and strong classification and framing of selection of knowledge and the evaluation criteria. Conversely, strong classification and framing of pacing, hierarchical relations, knowledge relations and between spaces; and weak classification and framing of selection of knowledge and of the evaluative criteria would result in poor learning conditions for learners.

Bernstein uses the concept of “classification” to refer to the relationship between contents. Bernstein writes:

“Classification refers to the strength of the boundary between knowledge contents. Where classification is strong, contents are well insulated from each other by strong boundaries. Where classification is weak there is reduced insulation between contents, for the boundaries between contents are weak or blurred” (Bernstein 1996, p.56).

Classification is expressed as being strong (where boundaries are explicit and categories are insulated from one another), or weak, where there is integration, or where the boundary is weak or blurred. Where the collection code is strong, classification is strong and relations between the role-players may be distant because there are hierarchical power relations between the transmitter and the acquirer. In this study, the researcher looked at classification in terms of:

- Inter-disciplinary relations (the relations between different subjects)
- Inter-discursive relations (relations between school and everyday knowledge)
- Intra-discursive relations (relations between knowledge within a particular subject).
- Relations between spaces (insulation between teacher’s space and learners’ space).

The concept of classification was transformed into a coding scheme, as used by Hoadley (2004), to read the data. The coding scheme is comprised of indicators, providing a means for making conceptual categories observable. Four classification codes were used, (C++, C+, C-, C--), which apply to inter-disciplinary, intra-discursive, inter-discursive relations and relations between spaces. **Inter-disciplinary relations:** Very strong classification (C++) means that the subject is maintaining its singular status. This ensures a collection code. Strong classification (C+) means that the singular has been partly changed. Weak classification (C-) means that the subject has been changed to a learning area, meaning that there is integration. Very weak classification (C--) means that the contents from other subjects are very often referenced. **Inter-discursive relations:** Very strong classification (C++) in this case means that only the school code is acceptable in that

subject. Strong classification (C+) means that the community code is used but to a limited degree. Weak classification (C-) means that the community code is used quite often to explain certain topics. Very weak classification (C--) means that the teacher relies on the community code/everyday knowledge in her explanation.

Intra-discursive relations: Very strong classification (C++) means that the topics that are dealt with are highly insulated from each other, meaning that they are independent of the other. Strong classification (C+) means that there are some links with previous topics but only to make the present topic clearer. Weak classification (C-) means that the teacher sometimes refers to other contents. Very weak classification (C--) means that the present topic is dependent on the previous topic, meaning that the links are made open. **Spaces:** Very strong classification (C++) means that the teachers and learners generally remain in their own spaces. Strong classification (C+) means that the teacher and learners quite often move into each others' spaces. Weak classification (C-) means that the teacher often enters the learners' spaces to monitor work. Very weak classification (C--) means that the teacher spends most of the time in the learners' space checking, marking, assisting and monitoring work.

Bernstein uses the concept of classification to examine *power relations*. Bernstein (1996) states that power relations create boundaries, legitimise boundaries and reproduce boundaries between different categories of groups which can be gender, class, race, different categories of discourse and different categories of agents. Bernstein (1996) argues that power is preserved by insulation and that the attempts to change degrees of insulation reveal the power relations on which the classification is based. Bernstein (1996) points out that, in the case of strong classification, each category has its unique identity, its unique voice, and its own specialised rules of internal relations. Bernstein argues that classification, strong or weak, always carries power relations.

Framing is the second Bernsteinian concept that the researcher used together with classification. As classification is concerned with power, framing focuses on control. While classification stipulates boundaries, framing explores how the boundaries are negotiated (Bernstein, 1982; 1996). Bernstein writes:

“Strong framing entails reduced options; weak framing entails a range of options. Thus frame refers to the degree of control teacher and pupil possess over the selection, organization and pacing of the knowledge transmitted and received in the pedagogical relationship” (Bernstein, 1982 p.159).

According to Bernstein (1996), classification and framing complement each other. Bernstein (1996) defines framing as referring to the “controls on communication in local interactional pedagogic relations between parent/child; teacher/pupil; social worker/client, etc.”

Bernstein emphasises that framing does not refer to the content of knowledge that is framed, but to who controls the framing. Bernstein argues that where framing is strong, the transmitter has explicit control over selection, sequencing, pacing, evaluation criteria and the social base. Where framing is weak, the acquirer has more apparent control over the communication and its social base. As Bernstein points out, framing is about ‘*who controls what*’. He argues that control establishes legitimate forms of communication appropriate to the different categories.

Where framing is very strong (F++), the transmitter of the knowledge (i.e. the teacher) has explicit control over selection, sequence, pacing and evaluation criteria. Where there is strong framing (F+), the teacher sometimes allows the acquirer to have some control but up to certain limits. If framing is weak (F-), the acquirer varies the selection, sequence, pacing and evaluation criteria. Very weak framing (F--) means that the transmitter has no control over what is taking place. Instead, the acquirers have apparent control. There is a necessity of including Fo, the framing value for the framing of the evaluative rules. There were cases where the researcher could not observe the pedagogic code for the instructional discourse. In the case where there is Fo, Hoadley (2005) defines this kind of learning as the one where no attempt is made to transmit the concepts and principles in the instructional practise. What counts as a successful production in terms of instructional knowledge is therefore totally unclear. The purpose of the task / activity / discussion is unclear. Learners are unclear as to how to proceed, or they are only given criteria relating to how they should behave. The teacher gives no evaluative feedback to learners and they are unaware of the correct answers. Consequently, where the teacher is unable to evaluate we get Fo for the evaluative rules. According to Hoadley (2005), Fo may

point to a breakdown in pedagogic discourse, or the absence of (a particular dimension of) pedagogy.

In this study framing focused on the relationship between the teacher (transmitter) and the learner (acquirer) within the classroom. The focus was on:

- the extent to which the teacher controlled the **selection** of content;
- the extent to which the teacher controlled the **sequencing** of content;
- the extent to which the teacher controlled the **pacing** of content;
- the extent to which the teacher made explicit the **rules of evaluation** of the learners' performances; and
- the extent to which teacher and learner had control over **hierarchical rule**.

According to Bernstein (1996), there are two systems of rules regulated by framing namely:

- the rules of social order, i.e. regulative discourse and
- the rules of discursive order, i.e. instructional discourse.

The rules of social order control (RD) the hierarchical relations between the transmitters and acquirers within the classroom situation. These rules allow the transmitter to label the acquirer as 'attentive' or 'disruptive'. This labelling is easily achieved when framing is strong. Where framing is weak, labelling becomes difficult, even for the acquirer who struggles to make his/her own mark by being creative or interactive. The RD translates the dominant values of society and regulates the form of *how* knowledge is transmitted. The ID is a discourse of competence that refers to *what* is transmitted. The rules of discursive order (ID) are concerned with the transmission/acquisition of specific competences, and regulative discourse is concerned with the transmission of principles of order, relation and identity (Bernstein, 1990 p.211). Pedagogic discourse consists of an instructional discourse embedded in a regulative discourse, and this can be represented as follows:

Framing = Instructional Discourse

Regulative Discourse

The regulative discourse, i.e. social order rules, is always dominant in relation to discursive rules/instructional discourse (Bernstein, 1990). The fact that the instructional discourse is embedded in the regulative discourse means that the hierarchical relation between the transmitter and the acquirer regulates the selection, sequencing, pacing and evaluative criteria of the instructional knowledge.

According to Morais (2002), knowledges, cognitive competences and scientific processes are the contents of instructional discourse and social dispositions, namely attitudes; and values, rules of conduct and principles of social order, are the contents of regulative discourse. She gives the example that if teachers indicate that an answer is 'right', 'wrong' or 'incomplete', they are referring directly to ID; but when teachers make suggestions such as 'answer the same way as John's', they are referring to RD.

Bernstein (1996 p.26) argues, however, that classification provides us with our voice and the means of its recognition (*what* meanings are put together). The principle of framing is the means of acquiring the legitimate message, that is, *how* meanings are put together. Classification and framing describe the structural and interactional aspects of pedagogic practice, exposing the power and control relations that inhere in pedagogic practise. These concepts are connected to a set of related concepts which allow for the analysis of the working of power and control, in particular in relation to transmission and acquisition processes. Classification and framing are related to recognition and realisation rules. Classification provides the key to distinguishing contexts. It is classification which orients the speaker to what is expected and what is legitimate given the context, that is, the recognition rule. Framing regulates the realisation rule, how legitimate meanings may be put together and made public.

According to Bernstein (1996), changes in classification strength change the recognition rules by means of which individuals are able to recognise the speciality of the context. He argues that the classificatory principle provides the key to the distinguishing feature of the context and orientates the speaker to what is expected or legitimate. People sharing a common pedagogic communication share common recognition rules.

As classification indicates how one context differs from another, weak classification can make it difficult for the acquirer to recognise the speciality of the context, thus making it difficult for him/her to achieve the realisation rules. The achievement of the recognition rules means that the individual has the ability to recognise the boundaries between contexts. In the transmission and acquisition situation, the achievement of the recognition rule will mean that the acquirer (learner) is able to recognise what it is that the subject is about.

Achieving the realisation rule, on the other hand, means the ability to articulate and apply what one has recognised, meaning that the acquirer is able to create the legitimate text based on the context. The term 'text' refers to anything that can be evaluated. A legitimate text can only be created by an individual who has achieved the realisation rules (Bernstein, 1996). While recognition rules operate between contexts, realisation rules operate within contexts.

It must be noted that framing has much to do with the relationship between the transmitter of knowledge and the acquirer of knowledge. In this study, the 'transmitter' was the teacher and the 'acquirer' the learner. According to Bernstein, recognition rules refer to recognising the speciality of the context, i.e. the learner recognises the school context and responds accordingly. This was evident with the middle-class learners in Bernstein's food experiment (Bernstein, 1990; 2000; Copper & Dunne, 1998; 2000; Hoadley, 1999) who recognised the school context and grouped food according to context-independent principles. This chapter described Bernstein's concepts that were used to analyse this study.

In the next chapter the researcher will map out the route of investigation that was planned and used in gathering the data.

CHAPTER 4

RESEARCH METHODOLOGY AND DESIGN

4.1 INTRODUCTION

It is through classroom research that the conditions of learning and teaching and teaching strategies can be improved. Classroom research is important in finding out what the actual curriculum practices are. In this chapter the researcher outlines the research design planned and followed in the process of data collection.

4.2 RESEARCH APPROACH

Research can be broadly classified as quantitative or qualitative. The distinction between the two approaches lies in the aim and role of the researcher, and how data is collected. Data collection in quantitative research is dominated by formal measurement and statistical analysis. On the other hand qualitative research seeks to understand human experiences.

It is important to note that the two approaches are related. While the quantitative approach emphasises measurement, some description and interpretation of the numbers is necessary. The choice of the research approach is informed by the nature of the research questions (Yin, 1984). Stake (1995) suggests that the research questions influence the choice of the research approach. This study sought to understand the teachers' practices and its questions could be answered by employing the qualitative research approach.

4.2.1 The qualitative research approach

To answer the key questions, the qualitative research design was used. A qualitative research is considered to be a "study of the way of life of a group of people" (Prus, 1996). The following is a definition of qualitative research:

Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that makes the world

visible. These practises transform the world. They turn the world into a series of representations ... qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret phenomena in terms of the meanings people bring to them (Denzin & Lincoln, 2000 p.3).

The qualitative research approach was relevant for this study because the researcher was interested in the actual teacher practices in the classroom. The following characteristics of qualitative research can be identified:

- Qualitative research seeks to understand the complex interrelationship among all that exists.
- The primary characteristic of qualitative study research is the centrality of “interpretation” (Frederick, 1986).
- Qualitative research tries to establish an empathetic understanding for the reader through description, sometimes “thick descriptions” (Geertz, 1973; Denzin, 1989).
- Qualitative inquiry is distinguished by its emphasis on the “holistic” treatment of phenomena (Schqandt, 199).

The nature of qualitative research demands that the researcher should be as ‘close’ as possible to the situation and have an ‘intimate familiarity’ with the participants (Blunmer, 1969). In order to understand, the researcher had to be as ‘close’ as possible to the situation, to derive meaning from the interaction taking place in the classroom, to interpret those meanings and arrive at some conclusions.

This study falls under the interpretive paradigm that focuses on social construct. Meighan (1981) notes that the interpretive approach focuses on action and the researcher’s task is to ascertain the intentions of the actor and to share his/her experiences in order to make observed actions meaningful. Interpretivism considers understanding to be an intellectual process whereby the acquirer gains knowledge about an object (the meaning of human action). According to Bernstein (1973), no reference is made to the interpreter, to the individual who is engaged in the process of

understanding and questioning. The interpreter objectifies that which is to be interpreted and remains unaffected by and external to the interpretive process.

4.3 THE CASE STUDY METHOD

As indicated above, the approach chosen to be employed in this study was the qualitative approach, and the method adopted was the case study method. The definition of a case study according to Yin (1984) is that:

A case study is an empirical enquiry that:

investigates a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and context are not clearly evident; and multiple sources of evidence are used (Yin, 1984 p.23).

Yin (1984) sees the ability to use a variety of evidence, for example, observation, documents, artefacts and interviews as the unique strength of case studies. Hopkins (1993 p.43) considers the following as the advantage of using the case study method:

- *It is a relatively simple way of plotting the progress of a course or pupils' or groups' reaction to teaching methods.*
- *Information yielded by case studies will tend to give a more accurate and representative picture.*

Walker (1980 p.33) notes that:

- *case studies are valuable in that they give insights into specific instances, events or situations.*

In the following paragraph, the techniques used for data collection in this study will be discussed.

Gorman and Clayton (2005) suggest four methods of qualitative research commonly applied in research. These are observation, group discussion, interviewing and

historical study. In this study, observations, semi-structured interviews and a questionnaire were used (see Appendix D).

4.3.1 Observation

This is one of the four methods of qualitative research suggested by Gorman and Clayton (2005 p.39). They differentiate between two types of observation, which are structured and unstructured observations. Structured observations are defined as sampling a predetermined event or activity, using a prearranged instrument or form in whose categories the observer records whether specific activities have taken place, when and how. Unstructured observation is when an observer records any behaviour or event that is relevant to the research question being investigated.

Cohen and Manion (1994 p.107) assert that, ‘... at the heart of every case study lays a method of observation’. Some authors believe that observation can be either participative observation or non-participative observation (Cohen & Manion, 1994). According to this view, a participant observer takes part in the activities that he/she observes. A non-participant observer does not take part in the activities; he/she can sit at the back of the classroom writing down his/her observation.

The approach used in this study was non-participant unstructured observation. When the researcher did classroom observation, she sat on the right-hand side of the classroom facing forward and made detailed notes of activities during lessons and recorded as much dialogue as possible.

4.3.2 Interviewing

The most obvious way of finding information is to ask someone. Interviews are often categorised into three types: structured, semi-structured and unstructured interview. The structured interview is regarded as a ‘formal’ or ‘controlled’ interview (Giddens, 1989; Hitchcock & Hughes, 1989).

In a structured interview, the researcher strives to be objective by eliminating the human factor. Structured interviews are therefore appropriate for quantitative research.

A semi-structured interview is more flexible than a structured one. It is flexible in the sense that the interviewer is able to ask more questions beyond the planned questions or to probe for deeper understanding and the respondent (interviewee) can expand on his/her responses (Hitchcock & Hughes, 1989). In the unstructured interview there is a greater degree of flexibility. The unstructured interview is sometimes called an 'interview as a conversation' (Burgess, 1984).

In this study, semi-structured interviews were employed. They took place after the observations because they were based on observed interaction or lessons. Although a set of questions had been prepared, they were a starting point for an interactive conversation, which allowed some issues to be explored at length. In order to allow for the freedom to speak, the interviews were tape-recorded and later transcribed. The transcription process and the procedure were time consuming, however. The process was continued after the research had been completed. Apart from the school principal, the educators who had been observed were also interviewed, that is, those who taught Mathematics, Natural Science and English.

4.3.3 Questionnaires

A questionnaire was also devised for the participating educators to fill in to provide their professional details. The questionnaires yielded information on which to base the interview discussion and were complementary to the other data-collecting techniques. The questionnaires were designed to give a quantifiable sense of educators' personal information, their secondary-school experience as learners, their tertiary education and their teaching experience. The information helped to explain the educators' teaching. Each educator was given a questionnaire during the course of the week to fill in. It can be referred to in Appendix D.

4.4 RELIABILITY AND VALIDITY

In qualitative research it is difficult to ensure absolute reliability because unlike a quantitative study, the main instrument of research is the researcher, a person, not an observation scheme, standardised tests or questionnaire form (Pelto, 1970 p.140). Gorman and Clayton (2005 p.54) define reliability as ‘the extent to which a measurement procedure yields the same answer however and whenever it is carried out’. They define validity as the extent to which it gives the correct answer.

To ensure reliability, the researcher engaged in different forms of collecting data. Gorman and Clayton (2005) suggest that note taking is perhaps the key to reliability but Chatman (1984) admits that this can be both time consuming and tedious. During the observations the researcher recorded some of the things that took place, and this contributed to reliability.

As reliability is linked to repeatability, so the concept of validity is linked to ‘truth’ (Gorman & Clayton, 2005 p.58). Of the three types of validity as suggested by Gorman and Clayton, the researcher employed *criterion validity*, which occurs when the research establishes the accuracy of findings by employing an additional method of inquiry. Just like Chatman (1984), the researcher used field notes as the basic method of inquiry in her research, but also conducted a semi-structured interview before she left the site.

4.5 SELECTION OF THE SCHOOL

The school was a rural primary school with African learners only. It was a functioning school. The participants were assured that confidentiality would be maintained by designating the school as School X. The participants were given names like Educator M, E and N.

4.6 ACCESS TO THE SCHOOL

The researcher did not have any difficulty gaining physical access to the school, since she was teaching at one of the schools in the same area. She had been teaching in the

intermediate phase for about six years. During these years she had attended a number of in-service courses and workshops with some of the educators at the school.

First of all the researcher telephoned the principal and made an appointment to see her in order to negotiate access to the school for her study. At the meeting, where the educators were present, she described the topic and the purpose of the research, assuring confidentiality and anonymity. Educators were willing to participate in the study. She then gave the principal and the educators who were going to participate in the study, the informed consent form to fill in (Appendices A and B).

4.7 PERIOD OF TIME SPENT AT THE SCHOOL

The researcher spent one week at the school as a non-participant observer. She observed everything that took place in class during teaching and learning time. Of the eight learning areas in grade 4, she carried out observation in Mathematics, English and Natural Science. Three educators who taught those learning areas were observed in a grade four class for 5 days.

The breakdown of the lessons observed is as follows:

Educators	LA	No. of days	No. of lessons observed
Educator M	Maths	5	8
Educator N	NS	5	7
Educator E	English	5	7

4.8 DATA ANALYSIS

Data analysis is one of the important components of the research process. While the researcher is making an observation, he/she also examines the parts and relates it to the other parts (Stake, 1995). Stake regards data analysis as a process during which the researcher interacts with evidence with the aim of constructing meaning.

‘Data analysis consists of examining, categorizing, tabulating or otherwise recombining the evidence ...’ (Yin, 1984 p.99).

In order to analyse data, the researcher used the aspects from Hoadley's research on teachers' identities and pedagogic practices as a guide. Hoadley has developed an external language of description using the work of Morais and Pires (2002) and Morais and Neves (2001). The instrument presented here has been used as a tool to guide data analysis. Following Bernstein (2000), the instrument, figure 4.8.1 A, seeks to assign values in terms of framing to the discursive rules of pedagogic practice: **the selection, sequencing, pacing and evaluation criteria** of educational knowledge. It also examines the hierarchical rules

4.8.1 Conceptual categories for researching pedagogy

A. Framing

Framing	Discursive rules	Extent to which teacher controls selection of content
		Extent to which teacher controls sequencing of content
		Extent to which teacher controls pacing of content
		Extent to which teacher makes explicit the rules for evaluation of learners' performances
	Hierarchical rules	Extent to which teacher makes formal or informal the social relations between teacher and learners.

B. Classification

Figure 4.8.1 B. considers discourse relations in terms of the strength of classification between different learning areas, between school and everyday knowledge and within the learning area. The schedule contains indicators for each of the following conceptual categories:

Classification	Relations between discourses	Inter-disciplinary (strength of boundary between different learning areas)
		Inter-discursive (strength of boundary between school and everyday knowledge)
		Intra-disciplinary (strength of boundary between different contents within the LA)
	Relations between spaces	Teacher – Learner (strength of demarcation between spaces used by teachers and learners.

Figure 4.8.1: A and B (Ensor & Hoadley, 2004)

4.8.2 Indicators

This scheme was taken from Ensor and Hoadley (2004). They describe it as having a number of advantages, a few of which are:

- It starts from a clearly-stated theory of pedagogy which is used to develop coding categories.
- It is transparent and relatively open to interrogation.
- It provides a language whereby we can look at classroom life in a non-evaluative way.
- Because this scheme was used as an analytic rather than a data collection instrument, it can undergo refinement and change in dialogue with the data.

A. Classification

Discursive relations: Indicator 1

Inter-disciplinary relations (Between subject areas)			
C++	C+	C-	C--
There is very little or no referencing of contents from other subject areas.	Contents from other subject areas are sometimes referred to, but are not the focus.	There is substantial referencing of contents from other subject areas.	Contents from other subjects are very often referred to, particularly through theme approaches.

Discursive relations: Indicator 2

Inter-discursive relations (Between school and everyday knowledge)			
C++	C+	C-	C--
No reference to everyday knowledge is made or seen. Only references to the subject knowledge are accepted.	Sometimes everyday knowledge is accepted and integrated through the deployment of themes.	Everyday knowledge is often referenced. The connections are sometimes made explicit.	Everyday knowledge is constantly referenced. The distinction between the subject knowledge and everyday knowledge is not made explicit.

Discursive relations: Indicator 3

Intra-disciplinary relations (Within the subject)			
C++	C+	C-	C--
The teacher very often refers to other contents or broad principles within the subject.	The teacher often refers to other contents or pulls out broader principles relating to the subject.	The teacher sometimes refers to other contents. The focus is almost solely on the discrete content, operation, skill being taught.	The teacher rarely or never makes reference to other contents. The focus is almost solely on the content, operation, skill being taught.

B. Framing

Discursive rule: Indicator 1

Discursive rule: Selection			
F++	F+	F-	F--
The selection of knowledge, tasks and activities is always determined by the teacher. Learners have very little control.	The selection of knowledge, tasks and activities is determined by the teacher most of the time. Learners have a little control.	Learners have the opportunity to vary the selection of tasks, activities and knowledge some of the time.	Learners often make decisions around the selection of tasks and activities in the classroom.

Discursive rule: Indicator 2

Discursive rule: Sequencing			
F++	F+	F-	F--
The teacher always determines the sequence of transmission of knowledge in the classroom. Learners have very little control.	The teacher more than half of the time determines the sequence of transmission of knowledge in the classroom.	Learners have the opportunity to vary the sequence of the transmission some of the time.	Learners often make decisions around the sequence of tasks and activities in the classroom. They are regularly given options regarding the order in which to do things.

Discursive rule: Indicator 3

Discursive rule: Pacing			
F++	F+	F-	F--
The pace at which learners work is almost always strictly controlled by the teacher. Learners have very little control over the pace.	The pace at which learners work is determined by the teacher. Time is mentioned quite often. Learners have a little control over the pace.	The teacher accepts some learner interventions and questions. She exercises some control but remains open to its variations.	Learners have substantial control over the pace. They work at their own pace.

Discursive rule: Indicator 4

Discursive rule: Evaluation criteria				
F++	F+	F-	F--	Fo
Evaluative rules are very clear and explicit. The teacher makes it clear how the task should be completed.	Most of the time the teacher makes the evaluative rules explicit. The teacher elaborates on answers.	The evaluative rules are quite unclear and implicit. The criteria for successful production are not made explicit.	The evaluative rules are very unclear and implicit. The teacher makes no comments on the learners' work. They are unclear as to how to proceed.	The teacher engages in other work in her space and is not seen to look at what the learners are doing. She makes no comments on the work as it proceeds. No action is taken to ascertain what the learners are doing.

In this chapter, the researcher outlined the research methodology, described the analytical framework and how data were collected and analysed. In the next chapter, the context of the school and the educator profile will be described and an analysis of the collected data will be provided.

CHAPTER 5

ANALYSIS

5.1 INTRODUCTION

According to Thompson (1991), there are three phases of analysis. The first is socio-historical analysis, the second is formal or discursive analysis and the third is interpretation/reinterpretation. In this chapter the researcher firstly presents a socio-historical analysis of the school. The purpose of this first phase is:

“to construct the socio-historical condition and contexts of the production, circulation and reception of symbolic forms, to examine the rules and conventions, the social relations and institutions, and the distribution of power, resources and opportunities by virtue of which these contexts form differentiated and socially structured fields” (Thompson, 1991 p.284).

This is followed by the profile of the educators who were involved in this study. Secondly, an analysis of each learning area observed is presented. The third phase of analysis, which is the interpretation, then follows in chapter 6.

5.2 THE CONTEXT OF THE SCHOOL: SCHOOL X

Background of the school

School X is situated in the Msinga rural area, about 30 kilometres from Greytown. The school is about 2 km from the tarred road. It was established more than 60 years ago by the Lutheran church and belonged to the Mission for about 35 years. The school was officially transferred to the government in 1986 when it got its Permission to Occupy. The Mpofana River, about one kilometre from the school, is a barrier to learners, particularly on rainy days.

Faction Fights

The Msinga area was well known for faction fights that resulted in many schools in the area being closed. This school was never completely closed down, but there were

instances when the boys and local male educators were taken away from the school indefinitely. During this period learning was hindered and the pace of teachers slowed down.

Political Organisation

School X was not completely undisturbed during the anti-apartheid struggle. The community in the surrounding area belonged to the IFP. People who belonged to the other organisations could not reveal their allegiance because they were afraid of being dismissed by the local chief. This was one area where the chief was highly respected and recognised by the people. He was the dictator of the local Tribal Authority. People either did what he said or they bore the consequences. Even today his word is law.

School Policies

In order to control learners, the school developed a mission statement and a vision. Other policies that were evident were the code of conduct for learners, the admission policy and the safety rules. In the classrooms there were rules which were well displayed on the wall, but it seemed as though they were ignored by the educators and the learners, as the educator never referred to them during the week of the researcher's visit.

Disciplinary Measures

Although corporal punishment had been banned it was being used lavishly at School X. In the morning during the assembly, two or three educators stood by the gate and waited for the latecomers in order to punish them. Latecomers were punished by giving them two strokes on their hands with a cane. Some learners travelled about eight kilometres to school. The learners were all punished in the same way. The researcher also observed one instance where two learners were brought to the office for misconduct, and were punished by the Deputy Principal.

Human Resources

The school was comprised of only African learners. This combined primary school, started from Grade R, through to Grade 7. Of the 26 educators, there was one principal, one deputy principal, four heads of department (HODs) and 20 level 1

educators. Some of the educators had been negatively affected during the Rationalisation and Redeployment (R&R) process. Previously, there were 34 educators. Eight had been redeployed.

There were 1029 learners, resulting in a teacher-pupil ratio of 1:40. The number of periods in each five-day cycle gave each educator 51 periods per week. The school had a secretary and a grounds-man who were paid by the Department. There were other members who were paid by the School Governing Body. These included two security guards, one grade R educator and a member of the community who worked in the tuck shop.

Socio-economic background

The majority of the families were without men because they had been murdered during faction fights. The school was under the government's feeding scheme and the children were fed five times a week. Learners ate their meals at 10 o'clock every day and they had a break at 11h00. Time for eating was not accommodated in the timetable. At 10 o'clock teaching was disrupted while learners enjoyed their meal. They took about 15 to 20 minutes. The feeding of the learners by the government had a positive effect in this school, however. The rate of absenteeism was very low. Some of the learners came to school for the sake of the food.

During the researcher's interview with the principal, she said that approximately 80% of the parents were unemployed. The parents used the grant from the government to pay the children's school fees and buy their uniforms.

The researcher understood there had been a shoe factory (Bata) which was closed down in 1995, which had employed about 70% of the parents. The closure of this factory had contributed to the high percentage of unemployment.

Resources

The school had a tuck shop where learners could purchase snacks during break. The school had an electricity supply and a telephone. In the clerk's office there was a computer, tele-video and a photocopying machine. All educators, through their HODs, had access to these resources. The school was planning to start computer

classes and had already acquired 10 computers which had not yet been installed. The problem was that the school did not have an educator who was qualified to teach computer skills. The school had 20 classrooms which were used for teaching, an administration block, a school hall and a church building which was currently not in use.

Extra-curricular activities

The school was involved in various activities. Every Wednesday from 13h30 to 14h30, learners participated in sport. On the day of the researcher's observation, she participated in some of the activities that took place, which were soccer, netball, volley-ball, ladies' soccer, drum-majorettes and cultural activities. The school was more successful in the cultural activities, especially indlamu (Zulu dancing) for boys.

5.3 REPORT ON THE EDUCATOR PROFILE

In this section the profile of the educators who were involved in this study is described. The purpose is to compare their level of education with the results obtained by the pupils.

Table 5.2: Educator profile

Criteria	Educator M	Educator N	Educator E
Age	30 - 39	30 - 39	40 – 49
Gender	Female	Male	Female
F/T or P/T	Full time	Full time	Full time
Rank	Post level 1	Post level 1	Post level 1
First Language	Zulu	Zulu	Zulu
Experience	10 years	14 years	10 years
High school	Somashi High	Fundokuhle High	Buhlebuyeza High
Favourite subject/s	Bus. Eco., Econ.	English & History	Maths & English
Qualifications	SPTD	PTC	SPTD & HDE
Special subjects	Zulu, Maths, NS	History & Zulu	History & Maths
Teaching LAs	Maths, LO, A&C	Zulu. NS & Tech	Eng. SS, EMS
Subject committee	Life Orientation	Languages	None
Tertiary	Promat College	University of PE	Appelsbosch

Key for the qualifications: SPTD = Senior Primary Teacher's Diploma

PTC = Primary teacher's certificate

HDE = Higher Diploma in Education

Educator M is a single woman between 30 and 39 years of age. She holds an SPTD and has specialised in Zulu, Maths and Natural Science. She has 10 years of teaching experience. During the time of data collection, she was teaching Maths, LO and A&C in grade 4 only. She had taught Maths for 3 years. She had a teaching load of 51 periods a week. She was a member in the subject committee for LO. During the period 2004-2005, she attended workshops in Mathematics, Life Orientation and Arts and Culture for the intermediate phase.

Educator E is a married woman between 40 and 49 years of age. She has an SPTD and an HDE. Her major subjects are English, Maths and A&C. She has 10 years of teaching experience. She taught English for 4 years. During the time of data collection she was teaching English, EMS and A&C in grade 4 only. She had also attended workshops in these three learning areas during the period 2004-2005. She had a teaching load of 42 periods per week.

Educator N is a single man between 30 and 39 years of age. He has a Primary Teacher's Certificate (M+1). He had been teaching for 14 years. He was teaching NS, isiZulu and Technology. His teaching load was 52 periods per week. He had attended workshops in the period 2004-2005 in the three learning areas. He had been teaching NS for 6 years now.

Out of the three educators who were observed, two were females and one was male. All were full time and permanently employed. Since this school was in a rural area, all educators spoke isiZulu as their home language. Two of these educators had attended high schools that were in previously disadvantaged rural areas and the other had attended a high school in a location that was highly affected during the period of political violence.

As shown in the table, there was little correlation between favourite subjects and major subjects. However there was correlation between major subjects and the learning areas taught.

The educators who participated in this study felt that the RNCS was an improvement when compared to C2005 in terms of the terminology in various learning areas.

5.4 ANALYSIS OF LESSONS OBSERVED

5.4.1 Introduction

The previous section outlined a socio-historical analysis and the educator profile of School X. In this section a formal or discursive analysis is done. This analysis is done at the micro level of the classroom. The researcher focuses more closely on the content. Thompson (1991) describes the second form of analysis as a type of formal or discursive analysis, which is concerned, primarily with the internal organisation of symbolic forms, with their structural features, patterns and relations. The purpose is to define the pedagogic practices of the three educators in the classroom. The conceptual framework introduced in chapter 3 forms the basis for the analysis. The researcher only considered two concepts, namely classification, which is about ‘the *what*’ (what was transmitted) and framing, which is about ‘the *how*’ (how knowledge was transmitted).

5.4.2 Total number of lessons observed

Educators	LA	No. of lessons Observed
Educator M	Maths	8
Educator N	NS	7
Educator E	English	7

5.4.3 Analysis of Maths lessons

5.4.3.1 Discursive Rules

In this part the researcher considers the extent to which teacher and learners had control over the selection, sequencing, pacing, evaluation criteria and hierarchical rule of instructional knowledge.

Selection

The framing of selection of educational knowledge was very strong, F++. The educator selected the knowledge that was transmitted. In the introduction of all Mathematics lessons observed, it was the educator who decided on the sums and the examples that were done. Even the activities that the learners wrote were decided by the educator. At the end of the week, the educator gave the learners the assessment tasks that she had planned. The transmitter had total control over this aspect. Selection was coded F++.

Sequencing

The sequencing of educational knowledge was strongly framed. The sequence of transmission was determined by the teacher. In general it was the teacher who decided the order in which knowledge would be introduced. Sequencing was coded F++. There were times when the educator would write the examples on the board and ask the learners to do the work, but the sequence was determined by her.

Pacing

There was extremely weak framing over pacing. In the introductory activities, the educator spent long periods of time explaining and giving examples on a particular topic. Usually the Mathematics lessons were an hour long. The teacher used about 30 minutes to explain the work. After the explanation of the task, the educator gave learners some work to do. When the learners were engaged in work, the educator moved around their desks to check whether they were doing the work. Learners took very long to finish the tasks that were given to them. In most cases the pupils who finished the work were the gifted learners. Sometimes the teacher marked each book during the period, commenting on some of the work to some learners.

In none of the mathematics lessons observed were the slow learners catered for. Often the educator would write a series of tasks on the board that needed to be done and the learners worked through these at their own pace. In many instances the slow learners did not finish their work and the educator waited for them until the period was over. Weak framing of pacing indicated that the educator had very little control over acquisition and the learners had apparent control because they were afforded sufficient time in which to complete the work. In all Mathematics lessons that were observed pacing was weakly framed and thus coded F--.

Evaluation

The evaluation criteria were weakly framed or unknown. When the educator was moving from group to group, marking the learners work, she rarely made comments pertaining to the work. She simply marked the work wrong and moved to the other learners without explaining why the learner had got the answer wrong. The evaluation criteria were not explicit enough for learners to understand their errors. Although there were times when the educator attempted to transmit the evaluative rules for various tasks, these were based on whether learners executed mechanical procedures correctly. In most of the activities that required understanding of mathematical knowledge and skills observed the evaluation criteria were weakly framed and thus coded F -- and F o.

The following is an example of a lesson which showed weak framing of the evaluation criteria:

The educator drew the following examples on the board:



She then wrote the instruction on the board.

Educator: Draw these examples and give the answers.

A = The fraction that is shaded.

B = The fraction that is not shaded.

Learners engaged in doing the exercises from the board and the educator moved around among the groups. The learners finished and raised their hands. She went to them and marked their work. As she was marking, she made some comments using two languages, that is English and IsiZulu.

Educator: Kufanele zonke izikhala zilingane uma uzihlukanisa.

All spaces must be made equal.

Educator: Awubheke lo, i rectangle le oyidwebile?

Just look at this one, is this a rectangle?

The educator simply looked for correct drawings of shapes and answers without explaining misconceptions to learners who had not grasped the meaning of the operations.. The evaluation criteria was coded F -- and F o. .

Hierarchical Rule

The framing of the hierarchical rules was very strong and coded (F++). Discipline was controlled by the teacher and in her absence, learning activities mostly ceased. There was no physical interaction between the learners and the teacher and the teacher sometimes hit the learners with a stick.

5.4.3.2 Discursive relations

In the section that follows the classification of discourses is considered which is the strength of the boundaries between mathematics and other learning areas, between mathematics and everyday knowledge and within mathematics as a learning area.

Inter-disciplinary relations

The classification between subjects was very strong, C++. The lessons that were taught were based on the Mathematics content only. Referencing to other learning areas was not evident. The work that was done in class was based on fractions and the boundary between subjects was kept strong.

Inter-discursive relations

In the case of the relation between school and everyday knowledge, the boundary was weak, C-. The educator always referred to everyday knowledge in order to introduce the new lesson to learners. Everyday knowledge was specialised as the vehicle to enhance the learning being undertaken. This made the lessons to be weakly classified.

These are the examples of the lessons where the educator used everyday knowledge to introduce learners to new work:

Example 1

Educator: If your mom asks you to go to the store to buy a loaf of bread, what do you buy?

Learner: (uses mother tongue) Isinkwa esiphelele, meaning a loaf of bread.

Educator: Okay, What do we say in English?

Learner: A loaf of bread.

Educator: Good, you buy a loaf bread, angithi? (Is it?)

Class: Yes, educator.

The educator goes to the board and draws a loaf of bread.

Educator: Okay. If you do not have enough money, what can you buy? (She explains this sentence in IsiZulu.)

Learner: Half.

Educator: Good, half (she goes to the board and draws a centre line).

Educator: Okay, if you go outside during break, you will get quarters, is it?

Class: Yes, educator.

Educator: It means that if you cut these halves into two, you will get quarters.

The educator continues and asks learners questions based on the drawing on the board.

Educator: How many halves in one loaf?

Learner: Two halves.

Educator: Good, and how many quarters in one loaf?

Learner: Four quarters.

Example 2

The educator started her lesson by taking an apple which she had brought to the classroom. This conversation took place:

Educator: What is in my hands?

(Learners raised their hands and she pointed at them)

Learner A: An apple.

The educator drew an apple on the board. She turned to the class and cut the apple into two. She asked these questions:

Educator: How many pieces do I have now?

Learner B: Two pieces.

Educator: What do we call each piece? *(She showed the learners one piece)*

Learner C: Half

Educator: Good, and how do we write half?

Learner D: One over two.

The educator then wrote $\frac{1}{2}$ on the board. She continued with this example until she did $\frac{1}{8}$.

Example 3

On this day she gave the learners some sheets of paper. She asked them to fold the paper into two, four and eight. As they were folding the paper, she asked them questions as in the above example. The pattern that was used was the same, only the objects differed. The tasks that were given to learners were based on Mathematics content, but everyday knowledge was recruited in order to enable the learners to understand the new work.

Intra-Disciplinary Relations

The classification within the subject was weak. In the introduction and explanation of the tasks, the educator sometimes referred to other concepts within the Mathematics learning area that were taught previously, for example:

Draw a square and show half. Shade one part. What is the answer for a? What is the answer for b?

Draw a circle and show quarters. Shade two parts. What is the answer for a?
What is the answer for b?

In all the cases (a) = Fraction that was shaded and
(b) = Fraction that was not shaded.

From the above instruction, it was clear that the learners knew about shapes. The educator kept on reminding the learners that all parts must be equal. Although the teacher was teaching fractions, shapes formed the basis for the successful completion of the tasks. As a result this aspect was coded C -.

Relations between spaces

The extent to which the space was specialised for teaching and learning was strongly classified (C+). There were times when the teacher would leave the class after giving them work to do. When coming back she would ask them whether they were finished and start marking. The classification between the teachers' space and the learners' space was also strong. Usually the teacher moved in the learners' spaces to mark the work and while marking she made some comments based on the results of marking. The learners were not observed approaching the teacher for any help. This aspect was coded C+.

5.4.4 Analysis of English lessons

5.4.4.1 Discursive rules

This part deals with the extent to which teacher and learners have control over the selection, sequencing, pacing and evaluation criteria of the instructional knowledge.

Selection

There was very strong framing over the selection of knowledge. The knowledge that was taught was selected by the educator. Learners were not given an opportunity to select the content. The educator determined what was to be transmitted. The coding here was F++. In all the work that was done in class, in the introduction and in the explanation of the tasks, selection was done by the educator. Some learners usually finished earlier, but they could not do any other work as they were not given any by

the educator. All that was expected of them was to wait for the educator to tell them what next to do. They could not decide for themselves. The coding for selection was F++.

Sequencing

The sequencing of the transmission of knowledge was strongly framed. This was determined by the educator. This was coded F++. Learners had neither the opportunities nor the capabilities to vary the sequence of transmission. It was the educator who decided whether the examples done were enough for learners to write the tasks. There were no interventions by learners. This was common to all activities that were observed.

Pacing

On the first day the task required learners to fill in a form with personal particulars. The educator requested learners to open on page 12, where there was a form to be filled in. She read each and every sentence and she asked learners to explain the meaning in their mother tongue (Isizulu). In most cases she helped the learners because they did not understand the words. After the explanation, the learners were given blank forms to fill in, similar to the one in the book.

The educator requested the learners to raise their hands when they had finished. Learners did not raise their hands for almost 20 minutes. They worked very slowly until the time was nearly up. The educator then went around checking whether learners were doing the work. She discovered that learners were having difficulty with the work. She then requested them to put aside the papers and she explained the work again. Learners had control over pacing and therefore the coding was F--.

Evaluation

The evaluative rules were weakly framed (F--) or unknown (F o). The educator wanted the learners to fill in the form but failed to teach them how to fill in the form correctly. The learners followed the order that was used in the revision of the previous work. For example:

The form was like this

Name	:
Surname	:
Age	:
Date of birth	:
Nationality	:

The learners responded by writing like this:

Name	:	My name is Noluthando
Surname	:	My surname is Chiliza
Age	:	I am 10 years old

The learners struggled to understand how to fill in a form as an example was not done. They were unclear as how to proceed and they proceeded in the manner they chose with the result that their answers were wrong. This aspect was coded F--.

In other work that was given to learners, the educator was concerned with correct answers only which were based on reproduction. There were no instances where the learners were asked to give reasons for their answers. Learners who got full marks were not praised and there was no elaboration on correct answers. Those whose answers were wrong were asked questions like, "Where were you when I was explaining this to the other learners?" (referring to those who got full marks), and sometimes the teacher made comments like, "You do not listen and you think you will pass." In most of the English lessons that were observed the evaluation criteria were weakly framed and was coded F -- or F o.

Hierarchical rule

The framing relationship in terms of the hierarchy between the teacher and the learners was very strong (F++). Discipline as well as the activities in the classroom was controlled by the teacher, and in her absence activities ceased. The teacher administered corporal punishment to learners who committed undisciplined actions. Physical interaction was not observed between the teacher and the learners. This aspect was coded F++.

5.4.4.2 Discursive relations

This part is concerned with the relations between English and other learning areas, between English and everyday knowledge and within English as a learning area.

Inter-disciplinary relations

In English, the inter-disciplinary relations were strongly classified, C+. In the introduction and the explanation of a task, the educator sometimes made reference to other learning areas but in an implicit way. However, this did not constitute the focus. For example, the educator asked this question: *When do we fill in a form?* The learners responded by saying that: *when we apply for a job; when we apply for birth certificates*. The focus was on whether learners have any idea of filling in a form. The coding here was C+.

Inter-discursive relations

The relations between school and everyday knowledge were weakly classified. From the few lessons that were observed, some lessons required learners to use their everyday knowledge. In the first lesson, learners were asked to mention circumstances that required them to fill in forms. They mentioned instances such as when you apply for a job, when you fill in an indemnity form and other cases using Isizulu. In the second lesson, learners were asked to mention all their family members living with them. They mentioned people like their mothers, fathers, grandfathers, siblings and others. The educator required this information in order to make a connection between everyday knowledge and the topic to be introduced.

In the third lesson, the learners were required to create a poem using the members of their families. In the teacher's example, she pasted a chart with a picture of her brother on the wall and she wrote the poem below it. The knowledge between school and everyday knowledge was coded C-.

Intra-disciplinary relations

The intra-disciplinary relations were weakly framed. Although the educator wanted the learners to reproduce the skills that were taught, she sometimes referred to their

previous knowledge. Her first lesson was not successful because of referencing the previous knowledge. However, the focus was mostly on the work of the day when marking the learners' work.

When the learners were filling in the forms, the educator discovered that they were using small letters. She reminded them that they needed to use capital letters. She even asked learners to mention instances that required them to use capital letters. They responded by mentioning instances like: when they had to write their names, surnames, names of rivers, towns and others.

The other contents of English were useful in understanding the new work. This was coded C- because learners were expected to use their knowledge of previous work.

Relations between spaces

The extent to which space was specialised for teaching and learning was strongly classified (C+). The learners at times ask permission to leave the classroom. There were sometimes disruptions from the outside and the teacher left the class on a few occasions. The insulation between the teacher's space and learners' space was strongly classified (C+). After giving learners work to do, the teacher sometimes sat at the table and marked the previous work and later got up and marked from group to group, commenting on the work done.

5.4.5 Analysis of Natural Science lessons

5.4.5.1 Discursive Rules

This part deals with the extent to which teacher and learner have control over the selection, sequencing, pacing and evaluation criteria of instructional knowledge.

Selection

The selection in Natural Science lessons was strongly framed and the coding was F++. The learners did not have control over this aspect. It was the educator who selected the content to be taught and this made selection strongly framed.

Learners waited for the educator to teach them. If he was delayed and there was no educator attending to them, learners made a noise. All the tasks that the learners did were selected by the educator. When the learners had finished their tasks, they could not go on with other work if it had not been set by the educator.

Sequencing

The sequencing of educational knowledge was strongly framed. This was to a large extent determined by the educator. Learners did not have the capabilities to vary the sequence of transmission. The educator mostly controlled the order in which learning should occur. This was coded F++.

Pacing

Pacing in the Natural Science lessons was found to be slow and thus coded F--. Learners took very long to finish the tasks that were given to them. At times the educator tried to take control over time by specifying that he was giving learners only 10 minutes to do the work, but that was not successful. Learners worked at their own pace. This was coded F--. There were learners who were very fast at doing the tasks and the educator spent some time assisting the slow learners until they finished.

On the first day the educator pasted a chart on the board and requested the learners to select 10 animals from the list. He requested the learners to write down the kind of food those animals ate. This task had to be done as group work. The learners took very long to finish this activity. The groups with gifted learners finished earlier but the other groups struggled to finish. Those who finished earlier waited for the educator who was busy assisting other groups. The whole hour was spent on this work, yet some groups did not finish. Framing was very weak and the coding for this was F--.

Evaluation

The evaluation criteria were very weakly framed (F--) or unknown (F o). In the Natural Science lessons there was ambiguity as to what should be done and how it should be done. The teacher wanted the learners to understand many concepts simultaneously. The requirements for the successful completion of tasks were generally unclear and implicit. In his first lesson, the teacher requested the learners to write down the kinds of animals and the food they ate. This was group work, but the

feedback was not presented to the whole class. Other groups struggled with the work and they were not helped. The teacher looked at a few groups' work that was brought to his attention. In the other lesson the learners were asked to read from a book. He then asked the class: "Who is going to read for us?" A few learners raised their hands and he asked some of those learners to read from the book. In fact, they took turns to read. Almost the whole class listened to those learners whom I think were the gifted learners.

At the end of the week, the learners were given a worksheet to complete as an evaluation of the work done. The following is an example:

Name of animal	Type of food	Herb/Carn/Omni
Cow	-----	-----
Chicken	-----	-----
Pig	-----	- -----

Learners were requested to complete this list which was based on the work done. Their responses were mostly incorrect. Instead of writing whether a cow was a herbivore or a carnivore, they wrote as the teacher had, like this:

Cow grass herb/carn/omni

The learners did not understand what *herb*, *carn* or *omni* stood for. The teacher moved among learners' space and this was when he discovered that learners were having a problem with the work. At the end he requested the learners to write only the food that the animals ate. This aspect was coded F--.

Hierarchical Rule

The extent to which teacher and learners had control over the order, character and manner of the conduct of learners in the classroom was strongly framed (F+). The teacher admonished the learners using positional control and the physical interaction was distant.

5.4.5.2 Discursive relations

In this section the classification of discourses between Natural Science and other learning areas, between Natural Science and everyday knowledge and within Natural Science as a learning area is considered.

Inter-disciplinary relations

The relation between Natural Science and other learning areas was strongly classified. The teacher did not refer to other learning areas in any explicit way. However, there were instances where the educator tried to explain some concepts of Natural Science using either the first or the second language. There was also an activity that required learners to read a text from the book. Although it was a science lesson, the language formed the basis for understanding the work that was done. The Natural Science lessons were strongly classified and the coding was C+.

Inter-discursive relations

The relation between school and everyday knowledge was weakly classified and was coded C-. Learners' responses that referred to everyday knowledge were accepted. In the chart that was pasted on the wall where the learners were expected to choose 10 animals and to write down the food they ate, learners chose animals that they were familiar with, mostly domestic animals. In the worksheet that the educator gave to learners, he also considered mostly domestic animals. Even though the focus was on science, everyday knowledge was recruited in order to explain scientific knowledge. This aspect was therefore coded C-.

Intra-disciplinary relations

The intra-disciplinary relations were weakly classified. There were instances where the educator would refer learners to other contents of Natural Science lessons that were done the previous week. For example he asked the learners whether they still remembered the places where they would find wild animals. The learners said they did, and he asked them to mention a few. That enabled the learners to make a connection between the previous work and the new topic. However, that link made the intra-disciplinary relations to be weakly classified and thus coded C-.

which the knowledge would be introduced. The work that was given to learners was selected by the teachers and learners did not have access to any other work that was not planned by the teachers. The learners have neither the opportunities nor the capabilities to vary the sequencing of knowledge and to make selections about the knowledge to be transmitted. All three teachers (transmitters) had control over selection and sequencing and the coding for these aspects was F++.

There was very weak framing over pacing. The content that was covered in an hour was very little. In the lessons that were an hour long, teachers spent about thirty minutes explaining the work to learners. When the learners were doing the tasks, they took very long to finish. The maths teacher sometimes marked the learners' books, making comments to those learners, while others were still writing and that slowed the pace. The science teacher sometimes mentioned time to learners but did not do anything about it. Some of the work was left unfinished and the learners were requested to finish it at home. On the following day, the teachers continued with the other work without checking whether the previous day's work was done. Very weak framing over pacing indicated that the teachers did not have control over the rate of acquisition and instead the learners were given control because they took their time to complete the work. This aspect was coded F--.

From the table above it is clear that the framing of the evaluative rules was very weak or unknown. The evaluative criteria were implicit. Even though the answers were not comprehensive, as long as the learners could recall the work done, they were considered successful. The teachers did not elaborate on correct answers, and learners who got wrong answers were not helped to understand why their answers were wrong. Sometimes the corrections were done on the following day, and the learners who gave the answers were those who had got the answers right. Those learners who got the answers wrong simply copied the corrections without understanding them. The very weak or lack of clear evaluative criteria hindered learners from acquiring the knowledge and skills of the subjects.

The framing of the hierarchical rules, or the extent to which learners and the teachers had control over the order, character and manners of learners in the classroom was measured by looking at the physical interaction between the teacher and the learners

and the way in which the teachers disciplined learners. There was very strong framing over the hierarchical rules during Maths and English lessons. The coding here was F++. The acquirers were not given options to respond to the control of the transmitters. For all educators observed, control was based on the teacher-pupil hierarchy, rather than an explication of rules or principles underlying the control. The teachers used physical threats by beating the learners with a stick which was kept in the classroom. In the Natural Science lessons hierarchy was strongly framed (F+). Even though the learners and the teacher were physically distant, there were cases where the teacher communicated with learners in a relaxed atmosphere and sometimes listened to their reasons for certain actions, but this was not always the case. The hierarchical rules in NS were coded F+.

5.5.2 Classification of discourses

The classification of discourses varied in the inter-disciplinary relations. The Mathematics teacher was not observed referencing other learning areas. She kept the boundary strong between Mathematics and other learning areas and therefore the coding was C++. The Science teacher sometimes referenced other learning areas to explain the topic and to make certain concepts clearer but the focus was on the work relating to Science only. It was for this reason that the coding was C+. The English teacher, on few occasions, referenced contents from other learning areas. In order to remind learners about the topic at hand, she would ask them a question based in another learning area but that did not form the focus of the task on hand. The coding for this aspect was C+.

In the case of the relation between school knowledge and everyday knowledge the boundary was weak. All three teachers' practices were coded C-. In the introduction of the tasks, the teachers often referenced everyday knowledge. Usually the educators used everyday knowledge to move from 'known' to 'unknown'. Also the learners' responses that referred to everyday knowledge were accepted in both the oral responses and in the execution of the tasks.

As described in the previous section, the teachers' practices in the intra-disciplinary relations were coded C-. Other contents within the particular learning area formed the basis for the successful completion of the task on hand. The focus was not only on the

task on hand but also on whether the learners were able to make a connection with the previous work. The coding was therefore C- for all teachers.

The relation between the spaces of the teachers and the spaces of the learners, that is, the classification of spaces internal to the classroom, was strongly classified (C+) for all teachers. Mostly teachers gave instructions from the front of the classroom and entered learners' space for marking. During Maths and English lessons, the specialisation of space for teaching and learning was strongly classified (C+). The teachers sometimes left the classroom and learners usually asked permission to leave the room. In the Natural Science lessons the boundary between the spaces for teaching and learning was weak. The teacher spent some of his time outside the classroom and there were often disruptions. The coding here was C-.

5.5.3 Analysis of interviews with teachers

In this section the interviews with the teachers are analysed, based on the data collected. From the data that was collected, it was clear that the learners were viewed as *tabula rasa*, passive receivers of knowledge. The teachers selected any topic that they felt comfortable teaching and they did not inform the learners about the expected outcomes of the lessons. When the teachers were asked about this type of teaching, they responded by saying that 'learners do not understand English. It is better to choose a topic yourself and to explain it to them using both English and Isizulu'. The teachers never tried rephrasing as suggested by Setati et al. (2002).

In the lessons that were observed, the teachers mostly gave learners long periods of time to do the work. When asked about their aims, they said that OBE requires that learners need to be given enough time to do the work. This response was based on 'learner pace' as per the policy. It showed that the teachers were aware of learner pace but did not know when it should apply. The aim of learner pace was non-existent and rather than a strong evaluation criterion, slow pacing led to weak evaluation criteria because what made the learners slow was that they were unsure about how to do the activities.

The other thing that was noticed was that the teachers assessed learners mostly by asking them questions. They were asked whether they used other methods of assessing and they mentioned a variety of other techniques like self-discovery, research and practical work which were not observed. Though the researcher did not spend much time with them, it was clear that some of the things they said they did were untrue.

Teacher qualification is important in student learning. These teachers did not participate in any development programmes in order to improve their qualifications and subject knowledge. When they were asked why they did not involve themselves in such programmes, one of them said that she did not have time as she lived far from the school and was using staff transport. The other two teachers said that there were no such programmes in the area.

The teachers' practices revealed that the instructional discourse was indeed embedded in the regulative discourse i.e. in the social order rules.

The next chapter deals with the interpretation of the findings conveyed in this chapter.

CHAPTER 6

DISCUSSION AND INTERPRETATION

6.1 INTRODUCTION

In chapter 5 the context of the school, the teacher profile of the three teachers in the study and an analysis of the lessons observed were presented. In this chapter, the results of the study are discussed and interpreted.

According to Thompson (1991) interpretation builds on both socio-historical and formal discursive analysis and proceeds by synthesis with the aim of construction of meaning.

The phase of interpretation is facilitated by, but distinct from, the methods of formal or discursive analysis. The latter methods proceed by analysis: they break down, divide up, deconstruct, seek to unveil patterns and devices, which constitute, and operate within, a symbolic or discursive form. Interpretation builds upon this analysis, as well as upon the results of socio-historical analysis. But interpretation involves a new movement of thought: it proceeds by synthesis, by the creative construction of possible meaning. This movement of thought is a necessary adjunct to formal or discursive analysis (Thompson, 1991 p.289).

The aim in this chapter is to synthesise the results of the socio-historical and discursive analysis for the purpose of understanding and explaining the factors that contribute to learners performing poorly at School X. In the section that follows the factors that impact on learner performance are discussed.

6.2 SOCIO-ECONOMIC BACKGROUND

With reference to the socio-economic background of learners, Taylor *et al.* write:

The socio-economic status of a child's family has a very powerful influence on the educational experiences of the child. The most important proxy indicators so far used are: poverty levels of the family/care givers, education level of parents or household head, and proficiency of the family/caregivers in the language of instruction used in the school (Taylor *et al.* 2003 p.68).

The impoverished socio-economic background of the learners at School X impacts negatively on their performance at school. Unlike advantaged learners who possess both the school and community code, learners at School X possess the community code only. The lack of a library at the school or even in the surrounding area disadvantages learners and their parents greatly. According to Bernstein (1977), children who have a community code have a far greater distance to travel to acquire the school code than children who have both the community and the school codes.

Despite the almost determining effect of socio-economic status on learner performance, many authors argue that schools and teachers really do make a difference (Hill, 1995; Reeves, 2005; Stevens, 1996). The researcher now turns to an analysis of the school and classroom factors that contribute to learners' performing poorly.

6.3 SCHOOL ORGANISATION

'The organisation of the school can', according to Hill (ibid 15), 'help or hinder learning'. For example, 'time on task can be maximised ... through timetabling in large blocks of time, having few public address announcements, minimising the number of visitors entering classrooms and the number of times students or teachers are withdrawn from class for other purposes'.

The poor use of time hindered learning at school X. Firstly, the first lesson often began late due to longer assemblies in the morning. Secondly, the teachers were often 10-20 minutes late for their lessons. Their lessons thus started late and often ran into the next lesson. Thirdly, the teachers frequently left the class during lesson time and frequently accepted interruptions of their lessons by other teachers and students. Fourthly, on Wednesdays teaching and learning ceased at 13h00 for sporting activities. It was clear that the timetable was a formality and not of practical value. Fifthly, much more time than allocated was used for feeding the learners and for washing and cleaning up that teachers seemed to accept as inevitable.

Teachers did not manage time effectively in the classroom. Teachers appeared unprepared for their lessons. They would go to the cupboard, take a book, and page through it, searching for the work to be done while requesting the learners to stop making a noise. It was common for the lessons on the timetable to be exchanged for other lessons. The far from optimal use of instructional time contributed to poor learning.

The teachers' practices showed that there was a lack of effective leadership in the school. Christie (2001) stresses that the importance of management structures in establishing the ethos of a school should not be overlooked. Hill (1995) argues that for a school to be effective there should be outstanding leadership, primarily directed at establishing agreed goals, increasing the competence and involvement of staff, and clarifying roles and expectations. One of the three essential core characteristics of an effective school, as described by MacGilchrist (1997), is high-quality professional leadership and management. One of the key roles of the leaders according to Hill is to implement and institutionalise an approach that incorporates the interrelated elements, some of which are classroom teaching strategies, intervention and assistance, school organisation and leadership, and coaching. As Hill puts it, 'only they have the authority to bring about the degree of transformation required, and the capacity to maintain an overview of ... the elements and ensure that each is operating effectively and in alignment with all other elements' (ibid).

More research focusing on the role of school management teams in this new system of education, specifically in working-class communities, needs to be done.

6.4 TEACHERS' PEDAGOGIC PRACTICES IN THE CLASSROOM

The discussion of pedagogic practices is based on the following table.

Essential condition for learning	Morais	Maths	Natural Science	English
Framing of selection of knowledge	strong	strong	strong	strong
Framing of pacing	weak	weak	weak	weak
Framing of evaluation criteria	strong	weak or non-existent	weak or non-existent	weak or non-existent
Framing of hierarchical relations	weak	strong	strong	strong
Inter-disciplinary classification	weak	strong	strong	strong
Intra-disciplinary classification	weak	weak	weak	weak
Academic-non-academic classification	weak	weak	weak	weak
Classification between spaces	weak	strong	strong	strong

Table 6.3.1 Comparison of teachers practices with Morais' conditions for learning

In agreement with Morais the three practices of the Maths teacher that did not lead to adequate learning were weak framing or lack of evaluation criteria, strong inter-disciplinary classification, and strong framing of hierarchical relations. As the evaluation criteria were implicit or non-existent, it was difficult for the learners to realise the rules for the successful completion of the tasks. Learners concentrated on drawing the correct shapes rather than giving the fractions they represented. According to Morais, strong framing of the evaluation criteria lead children to acquire the recognition and the realisation rules of the subject (Morais, 2002).

The strong framing of hierarchical relations did not give learners freedom to interact with the teacher. Weak framing of hierarchical rules creates a context where children can question, discuss and share ideas, thus strengthening the framing of evaluation criteria (Morais, 2002). In contrast, the strong framing of hierarchical rules made

learners passive and obedient to the instructions given by the teacher. According to Morais this criteria is not good for effective learning.

Morais argues that when the process of transmission-acquisition is characterised by a weak classification between various subjects, the acquirers are enabled to have a more meaningful understanding of the concepts. The strong inter-disciplinary classification prevented learners from having greater opportunities to go over the concepts sufficiently to understand them better.

In contrast to Morais who argues that weak pacing is an essential condition for learning because it allows the explicating of evaluation criteria, the weak pacing observed in the lesson prevented effective learning from taking place. The teacher spent too much time repeating the simple concepts that learners knew already. This finding is consistent with Reeves and Muller (2005) who argue that slow pacing results in learners' falling behind and having gaps in their knowledge. These authors argue that the slower pacing results in poor content coverage as well as insufficient content depth.

A weak classification of spaces according to Morais, strengthens the framing of evaluation criteria. It enables the teacher to enter learners' spaces to monitor what they are doing and to give assistance. Learners also regularly approach the teacher for help wherever she is. In the lessons observed, there was strong classification of spaces and therefore the evaluation criteria became implicit as the learners' work was not monitored.

In Natural Science, as in Mathematics, the poor learning resulted from strong framing of hierarchical rules, weak framing or lack of evaluation criteria and strong classification of inter-disciplinary relations,. Pacing during the Natural Science lessons was also weak and did not lead to effective teaching. The content that was covered in one week was too little and not in depth.

Poor learning in English resulted from strong framing of hierarchical rules and weak framing or lack of evaluation criteria. Although the inter-disciplinary classification was weak and pacing was weak, effective teaching and learning were not taking place.

Pacing was weak because learners were set tasks that they could not successfully engage with because they did not know what was required of them, for example, the learners were required to compose a poem, which they could not do.

My observation of the lessons revealed that the learners were being disadvantaged by lack of conceptual understanding and progression, lack of explicit evaluation criteria and feedback, and the very slow pacing of knowledge.

6.5 SUMMARY

One factor that accounted for the poor teaching was the poor qualifications of the teachers. According to Morais, effective training of teachers makes them aware of the meaning and effects of their actions, and gives them the opportunity to change their practices. The Natural Science teacher is under qualified and did not have enough skills to ensure that there was effective teaching and learning. Darling-Hammond (2000), Hoadley (2005) and Macbeath (2001) stress that teacher quality, including qualifications, has a positive effect on the performance of learners.

The lack of specialised learning-area knowledge meant that educators lacked accepted norms and standards against which to judge the quality of learners' work. Generally, the practices of teachers supported the transmission of low-status knowledge and skills. While intellectual enhancement was poor, hierarchical power relations were strongly maintained. The limited aim of reproduction of intellectual discourse, a key function of any school, was denied to students. Due to the teachers' lack of subject-content knowledge, poor classroom practices and slow pacing of knowledge, the teaching and learning experience was impoverished.

The impact of Bantu Education on teachers' subject knowledge was evident in what they taught. Enslin (1984) argues that the majority of teachers in SA, and the vast majority of Black teachers, continue to be 'products of ... Fundamental Pedagogics' that held little 'hope of fostering a discourse offering a language of critique' (p. 67). All the teachers at the school had been educated within the Bantu Education system, 'a system of education in which the management of knowledge served the ends of social control, of creating the conditions conducive to stratifying racial groups' and to

‘consign Africans to a tribal society in the reserves, but also to meet the demand ... for unskilled labour’ (Harley, 1990 p.453). The teachers’ intellectual and professional growth that had been deliberately stunted as school pupils and college students within the system of Bantu Education had not been redressed (Naidoo, 2006). It is crucial that educators who are the transmitters of knowledge acquire a sound understanding of the different learning areas such as Mathematics, English and Natural Science, the focus of this study. This will develop the potential of teachers to gain experience in the recognition rules of each learning area.

In this chapter the results of the analysis were discussed. In the next chapter the implications of the findings, the limitations of the study, issues for further research and the recommendations will be discussed.

CHAPTER 7

CONCLUSION

7.1 OVERVIEW OF THE RESEARCH

The purpose of this study was to investigate the school and classroom factors that contributed to the poor performance of learners in Mathematics, Natural Science and English in Grade 4 in a rural primary school.

The key research question was:

- What school and classroom factors contribute to learners' performing poorly in grade 4?

The sub-questions were:

- What school organisational factors contribute to learners' performing poorly?
- What pedagogic practices of teachers contribute to learners' performing poorly?

In response to sub-question 1, the data from the observations suggested that the factors like *the organisation of time and the way in which the school management team functioned* contributed to learners' performing poorly.

The organisation and management of the school did not prioritise instructional time. The school had a timetable which was dysfunctional. It was common to see teachers not in their classrooms, learners wandering around the school during lesson time and in some cases teachers appearing unprepared to teach even on the day of the visit to the school. Taylor et al. (2003) state that:

‘In order for the timetable to play a meaningful role in the school, it must be displayed prominently and then operationalised, with teachers knowing which classes to teach when, and at what time periods start’ (Taylor, 2003 p.110).

Although the teachers had the timetable in their classrooms, it was not operationalised and the SMT was not monitoring and controlling the teaching and learning processes.

In answer to sub-question 2, the study pointed to strong explication of the evaluation criteria as the most crucial aspect of pedagogic practice to promote higher levels of learning in all students. In this study the weak framing of evaluation criteria contributed to learners' performing poorly. This study also showed that strong framing of hierarchical rules and strong classification of inter-disciplinary relations and spaces contributed to learners' performing poorly.

Learners were being denied access to grade-specific, academic knowledge and skills in those key areas of knowledge that would in all likelihood function as barriers to learners' acquiring academic knowledge and skills in grade five and above. The knowledge and skills taught in Mathematics, Natural Science and Language in this rural school had implications for the reproduction of rural/urban inequalities. Teacher knowledge deficit is a serious problem to learner progression, and it needs to be addressed. The learners' lack of knowledge would disadvantage them and prevent them from performing well in other grades. To produce skilled and empowered learners, teachers' knowledge and methodology would have to be improved.

The implications for teachers and for students' life chances will now be discussed. This will be followed by the limitations, issues for further research and recommendations.

7.2 IMPLICATIONS FOR TEACHERS

The lack of well-coordinated and planned workshops for the preparation of teachers for the new curriculum was having an adverse effect on teaching in the classrooms. Unless the issue of thorough teacher training and preparation for the new curriculum was addressed by the education authorities, poor results by learners would continue to be a problem. Teachers do not learn new skills by accident. These are fostered by efficiently-trained facilitators and supported at school level by participative and compassionate management. The teachers should be made aware of implementing innovations but even more important is sustained support when implementing new policies in the classrooms (Elmore, 1999).

Robertson (1981) takes the issue of teacher preparation further by stating that the main focus is to empower teachers with skills and attributes to cope with increasingly changing classroom dynamics. Teachers must be taught how to convey enthusiasm and demonstrate that the teacher is keen to communicate subject matter and content in an organised and committed manner to sustain learner attention. Hargreaves (1998) concurs with Robertson and adds that creating the right class atmosphere involves lesson preparation, providing appropriate examples, momentum in the lesson, clear and articulated objectives and consistency.

Educators did not have a holistic understanding of what they were teaching and were therefore unable to perceive links between different parts of the curriculum. The educators' practices implied that learners would have difficulty in their learning and this would contribute to a high failure rate in the next grades.

7.3 IMPLICATIONS FOR STUDENTS' LIFE CHANCES

Life chances can generally be described as the possibilities of being successful in one's life. The educational life chances of learners in rural areas are considerably lower than those of learners in urban areas. If the socio-economic background is not strong because of previous disadvantages, the chances of being successful are very slim, in fact, virtually non-existent. The poor socio-economic background of the learners disadvantages them in comparison to learners from advantaged socio-economic backgrounds.

The way in which knowledge was distributed to the learners in School X implied poor life chances. As a result of the teachers' practices, the learners had very little knowledge of the present which they needed, and a vast knowledge of the past which was outdated and no longer needed. The learners would ultimately develop feelings of academic inferiority and this was a factor that would lead to their underachieving, thus limiting their chances of succeeding in life. Morally, failing to provide foundation competencies in the lower grades is disturbing enough, but the schooling system will not pick this up until the matric exit exam at Grade 12, when it is far too late to do anything about it. However, this system will continue through the middle years and the money will be spent on educating learners in a way that leaves them

with increasingly slim chances of success. This has obvious implications for continued development and progression in Mathematics, Natural Science and English with a consequent negative impact on career choices.

These were poor black learners in a rural school to whom the school and teachers were failing to provide quality education. Learners' only hope for the future was good quality education so that they might have better life chances, but the poor quality education they were receiving was further disadvantaging them.

7.4 LIMITATIONS OF THE STUDY

The limitations could be caused by the fact that the researcher was teaching in the intermediate phase in a rural primary school. This could cause subjectivity and bias in the interpretation of the findings. For example, she could have empathised with fellow colleagues, or added some general insights from her own experiences that were not revealed by the study.

7.5 ISSUES FOR FURTHER RESEARCH

This study was conducted with a rural school as research site. A replication of the study involving several rural schools would give further insights into the issue of learners' performance in grade 4. This would help to clarify the need for support programmes to be conducted in rural primary schools. The study could be broadened to include urban schools as greater insights could then be achieved.

Research needs to be done in other classes in the intermediate phase. This would help to identify the kind of knowledge that is being taught and to assess whether learners who are promoted in the intermediate phase have achieved the required level of performance.

The teachers' content and pedagogic knowledge needs to be researched in order to find out whether teachers are knowledgeable enough to teach the learning areas that they teach.

7.6 RECOMMENDATIONS

- The managers of the community centres as well as the principals of schools should encourage parents, especially in rural areas, to attend ABET classes so that they could become literate. This would enable them to know about the performance of their pupils at school and to bring about improvements.
- The Department of Education should organise more workshops and upgrading programmes for educators in previously disadvantaged rural areas and there should be support teams at cluster level, to ensure that educators understand their learning areas.
- Principals and School Management Teams (SMTs) need to be empowered so that they can offer relevant and constructive support which should be ongoing. This will make the educators feel that they are not alone and know that they are implementing policy.

The management teams should arrange developmental meetings in order to change the teachers' beliefs about teaching. They currently view teaching as an

- activity where knowledge is transferred from educator to learners.

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APPENDIX A
CONSENT FORM FROM PRINCIPAL

DECLARATION

I (principal) hereby confirm that I understand the contents of this document and the nature of the research project to be conducted by the student, N.I. Khoza. I understand that participation by educators is voluntary and that subjects are free to withdraw from the study at any stage and for any reason.

SIGNATURE OF AUTHORITY

.....

DATE

.....

APPENDIX B
CONSENT FORM FROM EDUCATORS

DECLARATION

I (full names of participant)
hereby confirm that I understand the contents of this document and the nature of the
research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so
desire.

SIGNATURE OF PARTICIPANT

.....

DATE

.....

APPENDIX C
SEMI-STRUCTURED INTERVIEW

QUESTIONS:

1. How did you feel about my presence in the classroom?

2. What are your views on the policy move that we should have integration?

3. I understand the Intermediate phase learners are starting to learn in the new system of education, which is RNCS. How does it compare to C2005?

4. In Grade Four, learners start to learn different learning areas using the second language. How do you find teaching Natural Science using the second language?

5. How do you select the content to be learnt / taught?

6. Which methods do you use when you teach?

7. Why do you use these methods?

8. What other programmes have you participated in to improve your knowledge in this learning area?

9. How do you overcome and manage professional challenges in your everyday work situation?

10. Which assessment techniques do you use to assess if learners have achieved the learning outcomes?

11. When do you give support to slow learners?

12. How do you support them?

APPENDIX D

TEACHER QUESTIONNAIRE

The data will be used for research purposes only, and neither your name nor the name of your school will be mentioned. The information you provide in this questionnaire shall be treated as confidential. Please do not feel either pressurised or constrained by the amount of space provided for your response. Feel free to record as little or as much as you wish. If the space provided is insufficient, please continue your remarks overleaf or on a separate sheet of paper. Thank you for your time.

1. Personal information

1.1. In which of the following age categories are you?

24 or less

25 – 29

30 – 39

40 – 49

50 +

1.2. Your gender:

1.3. Are you a full time or part-time teacher?

1.4. Your first language is

1.5. What qualifications do you hold? _____

2. Secondary school experience as a learner.

2.1. Name the schools you attended:

2.2. What were your favourite subjects?

2.3. Why were these your favourite subjects?

3. Teacher education

3.1. Why did you become a teacher? _____

3.2. At which institution/s did you qualify as a teacher?

3.3 What were your major subjects?

3.4. Why did you choose those subjects? _____

4. Teaching experience

4.1. How long have you been a teacher? _____ years ____ months.

4.2. How long have you taught at this school? _____

4.4. What subject committees and associations do you belong to?

4.5. Briefly, what informs the way you teach, for example, is it how you were taught, is it how other teachers in the school teach, is it what you learned at teacher training or is it other factors?

4.6. What are your main goals as a teacher?

4.7. What is your opinion of the RNCS?

4.8. Describe any kind of training you received prior to the implementation of RNCS.

4.9. Did the training contribute towards your understanding of the new curriculum?

4.10. Did you feel more confident about implementing RNCS?

Thank you for your time and patience.