TEACHER EDUCATION IN SOUTH AFRICA SERIES

MANAGING TO LEARN: INSTRUCTIONAL LEADERSHIP IN SOUTH AFRICAN SECONDARY SCHOOLS

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CONTENTS

TABLES

SERIES PREFACE

The Teacher Education in South Africa series is produced as part of the Teacher Education Programme (TEP), funded by the Embassy of the Kingdom of the Netherlands from 2005 to 2008.

The programme took place at a critical juncture in the development of teacher education in post-apartheid South Africa. Since 2004, sustained attention has been given to the improvement of teacher education consequent on the revision of the curriculum and the restructuring of higher education. In October 2004, the Council on Higher Education initiated a review of teacher education programmes. On 26 April 2007, a National Policy Framework for Teacher Education and Development was gazetted. This provided the basis for a new system of teacher education and development for a new generation of South African teachers.

The TEP emerged within this overall context of enhanced attention being given to the improvement of teacher education. Its overall goal was 'to contribute to the knowledge and information base for policy formulation and implementation regarding the organisation and practice of teacher education, with a particular emphasis on initial teacher education (both pre-service and upgrading), as well as the professional development of school leaders and managers' (CEA, CEPD, EFT, HSRC & SAIDE 2005). The work was organised under four major themes: teacher supply and demand; institutional culture and governance; the development of education management; and literacy and teacher development.

The programme was designed by a consortium of agencies with considerable expertise and experience in the field: the Centre for Education Policy Development (CEPD); the Human Sciences Research Council (HSRC); the South African Institute for Distance Education (SAIDE); the Centre for Evaluation and Assessment (CEA) at the University of Pretoria; and the Education Foundation Trust (EFT).[1] The TEP was developed in consultation with stakeholders such as the national Department of Education, the Ministerial Working Group on Teacher Education, the Deans' Forum and the Council on Higher Education/HEQC, amongst others. Briefing and consultation continued through the process of research, for the consortium as a whole and in relation to specific projects.

Michael Cosser, HSRC Organisational Manager, Teacher Education Programme

1 The EFT has been disbanded, and uncompleted projects have been taken over by the consortium.

PROJECT PREFACE

Managing to Learn concerns the leadership of curriculum and instruction in secondary schools in South Africa. The focus of the study emerged from a concern with the changing role of the principal, and the core functions of the school. Whereas principals are increasingly becoming managers in schools, taking on a wide range of administrative and financial responsibilities, the concern here is with the leadership of teaching and learning. The present project was defined under the theme of education management and governance, which focused on issues relating to leadership practices and teacher education. Initially the project aimed to investigate the training needs of principals, but was expanded and refocused to consider the management practices of principals in secondary schools in two provinces in South Africa, and the relationship between these practices and student achievement outcomes. Specifically, the project investigated the management of curriculum and instruction, and addressed the following questions:

- How is curriculum and instruction managed across different types of secondary schools in different social contexts?
- What are the key dimensions of the management of curriculum and instruction that affect student achievement outcomes?

The study was conducted in 200 schools in the Eastern and Western Cape provinces. Nearly 600 principals, teachers and senior managers (deputy principals or heads of department) took part in the study. The present monograph reports on the findings of this study.

Ursula Hoadley, Project Leader

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All the respondents who participated in the study are gratefully acknowledged, especially the four principals who gave generously of their time and ideas in discussions during the pilot phase. Thank you also to the fieldworkers on this project: Advaita Govender, Adam Cooper and Greg Nicholson. Pam Christie and Heather Jacklin provided useful comment throughout the process of the research, and Linda Chisholm and Servaas van der Berg provided valuable insights into the final draft of the monograph. Thank you to all these critical readers. The authors take responsibility for the findings and arguments presented here. Finally, we thank the Embassy of the Kingdom of the Netherlands for their financial support.

EXECUTIVE SUMMARY

This monograph reports on a study into the management of teaching and learning in a sample of South African secondary schools. The research was conducted in 200 schools in the Eastern and Western Cape provinces at the end of 2007. It is the first research study of its kind in South Africa – drawing on a medium-sized sample of schools in order to explore issues around instructional leadership. The study had two central research questions. The first considered how curriculum and instruction was managed across different types of secondary schools in different social contexts. The second related key dimensions of the management of curriculum and instruction to student achievement outcomes. The interest in this second question was in whether certain leadership factors were associated with improved student achievement gains over time.

The monograph offers an extensive review of the South African literature on leadership and management and an overview of the international literature, including both the empirical findings and conceptual developments within the broader field. From the literature a framework for the study of the management of curriculum and instruction in South Africa was developed. The framework prioritised management in the school as an *organisation*, rather than focusing on individual leadership traits. Also following the literature, the study was premised on the notion that – rather than impacting directly on curriculum and instruction in schools – effective management creates a 'container' within which teaching and learning can occur.

The monograph describes the profile of principals in schools. Notably, they were found to be generally well qualified, male, and with more than five years' teaching experience. Principals described their main activity in school as administration, and the disciplining of learners. The study found that, rather than inhering in the person of the principal, the management of teaching and instruction was 'dispersed' across the school.

In relation to those aspects of management associated with improved student achievement gains over time, the three most important variables identified through a series of regression analyses were curriculum coverage, parental valuing of and support for education, and the willingness of the governing body to help the school. The importance of positive school–community relationships for student learning thus emerged clearly from the research. Other factors that showed a significant relationship to improved student achievement outcomes were the structuring of the school day for maximum student learning, effective management of learning and teaching support material in the school, positive relations between staff members at the school, collaboration between teachers at the school, and the school having a plan to improve student results.

Whilst most of the study findings confirmed those of early school effectiveness studies in South Africa, the finding regarding the importance of school–community relations is important and novel. Further, the dimensions of leadership investigated here used individual-level data, rather than school-level data. Leadership variables were better measured in this study than in the school-level data sets used by the school effectiveness studies, and allowed for more definitive discussion of leadership dimensions. The study has limitations – notably its use of matriculation data as an indicator for student achievement outcomes, its reliance on self-report data, and its limited approach to change in leadership over time. It does not provide conclusive answers to what makes a good principal in relation to student learning in South African schools, but it does provide some valuable clues for further research.

ACRONYMS AND ABBREVIATIONS

ACE	Advanced Certificate in Education
DET	Department of Education and Training
DoE	Department of Education
EMDC	Education Management and Development Centre
HoA	House of Assembly
HoD	Head of Department
HoR	House of Representatives
IQMS	Integrated Quality Management System
LTSM	Learning and Teaching Support Material
Matric	Matriculation
NCS	National Curriculum Statement
SAGOT	Student Achievement Gains Over Time
SE	Standard Error
SES	Socio-economic Status
SGBs	School Governing Bodies
UK	United Kingdom
US	United States

Note

References in the text to P9, P21 and so on are to the relevant question number in the principal questionnaire (Appendix B).

CHAPTER 1

Introduction

This monograph documents a research study of the management of teaching and learning in South African secondary schools. The research was conducted in August and September 2007 in a representative sample of 200 secondary schools in two provinces in South Africa. The research addressed two issues. The first was the question of *how* schools managed curriculum and instruction, and the second related the management practices to Student Achievement Gains Over Time (SAGOT). This is the first study in South Africa using a medium-sized sample to focus on instructional leadership.

The study reported on here was initially conceptualised to focus on the training needs of principals in the South African schooling system. There has been, however, relatively broad consensus since Tsukudu and Taylor (1995) around what principals need to know, especially in relation to new roles and responsibilities assigned to them in the post-1994 education dispensation. Subsequent research has emphasised in particular the need for training in financial management and human resource management.[2] Part of the emphasis on training and development is a growing conception that good teachers do not necessarily make good managers; however, inherent in this view is a risk of technicising the role of the principal, and delinking the relationship between school leadership and teaching and learning. At the same time, there is consensus in the literature that the link between school leadership and student achievement outcomes is indirect and mediated. It is generally agreed that it is primarily principals who create the conditions of possibility for quality teaching and learning. There is less clarity, however, regarding what this entails empirically, and this is especially the case in the South African context.

The focus of this project is not on what principals *should* be doing in relation to the management of curriculum and instruction; there is plenty in the literature to suggest this. Rather, the project is concerned with *whether* and *how* curriculum and instruction is managed in South African secondary schools, and how this impacts on student achievement outcomes. Through a series of regression analyses the study identified a number of leadership practices showing a significant relationship to SAGOT. These leadership practices pertain primarily to the following: social relations established within the school, the relationship between the school and its parent community, the extent to which the curriculum is covered in the school, and the structuring of the school day for maximum student learning. Some recommendations for the training of principals flow from the research findings, as well as suggestions for further research. The term 'instructional leadership' is often deployed in the literature in considering the relationship between pedagogy/curriculum and leadership. The project aims to gain greater specificity regarding what instructional leadership means in the South African context.

Research questions

The central questions for the study are:

- How is curriculum and instruction managed across different types of secondary schools in different social contexts?

2 In addition, a new Advanced Certificate in Education (ACE) in educational leadership was introduced in 2007 by the Department of Education (DoE) to replace all other management training courses. This course will be evaluated, and any study on training would therefore run parallel to the most current developments in the field of school management training.

- What are the key dimensions of the management of curriculum and instruction that affect student achievement outcomes?

The first question is addressed descriptively in this monograph, providing a picture of the schools and principals and their key management functions. The second question is addressed through a quasi-school effectiveness design, aiming to link different dimensions of leadership in schools to SAGOT. The literature suggests that we should expect few *direct* effects of management on student achievement outcomes. However, we were interested in seeing if there were any significant relationships between the management of curriculum and instruction, and SAGOT.

The organisation of the monograph

The monograph begins with a review of the relevant South African and international literature on school leadership, briefly sketching out the different approaches that have been taken to its study. It then looks at the literature on instructional leadership specifically. Empirical findings and theoretical approaches to school leadership are reviewed. Following the literature review is a methodological note, which makes explicit the process of generating a conceptual framework for the study, and the development of instruments used for data collection. The second half of the monograph presents the findings of the present research study. While the research identified particular aspects of school management significantly associated with SAGOT, we argue that rather than SAGOT being a *direct* effect of such factors, effective school management creates a 'container' within which effective teaching and learning can occur.

CHAPTER 2

Review of the literature

The context of studying school leadership in South Africa

It is necessary to locate a study of leadership within the broader context of the decentralisation of education in South Africa and, in particular, the intended democratising of school management through the establishment of School Governing Bodies (SGBs). Sayed (2002) and the ministerial review of school governance (DoE 2004) both point out the contested nature of this decentralising, the lack of clarity around the roles and responsibilities of actors at various levels, and the way in which this kind of decentralisation benefits certain groups in society. Many parents and school personnel have little or no experience in school governance, and there has been inadequate preparation for SGBs taking on governance roles and responsibilities. Sayed (2002) argues that in an inequitable society, such as South Africa, the need for stronger state intervention may be more appropriate than the need for a decentralised system. The DoE (2004) further shows that in schools where parent capacity is low, it is the principal who maintains centralised control over governance. The policy around the roles and authority of school principals is, however, contested and in some instances ambivalent, thus rendering the job of managing schools more complex.

Decentralisation, with new roles and responsibilities for 'self-managing schools' (or 'site-based management'), is often accompanied by 'new managerialism', characterised by strong accountability and auditing mechanisms. Blackmore (2004) argues that the result of increased responsibility is increased risk for individual schools and principals, often in the context of fewer resources and minimal system support. In this, Blackmore identifies a tension between performativity ('being seen to be good') and passion (for 'doing good'). Principals, especially those in disadvantaged settings, have to struggle with these competing demands of a socially just public schooling on the one hand, and the new performativities required by markets and management on the other (Blackmore 2004).

Given the South African education system's recent emergence from a dysfunctional state of schooling under apartheid, we know that equitable and socially just schools are far from being established in the main (Christie 1998). Further, in relation to new performativities, accountability is currently realised in a relatively weak form in South Africa, mainly through three mechanisms: increased standardised testing (especially through continuous assessment tasks and the matriculation[3] exam), the production of curriculum standards (the National Curriculum Statements or NCS), and the Integrated Quality Management System (IQMS). The IQMS is particularly notable in its attempt to link quality and accountability, and the management of teaching and learning in schools. Although the emerging accountability system is weak in terms of rewards and sanctions attached to adhering to requirements, it is onerous in terms of the demands placed on schools, especially in their administrative components (Chisholm, Hoadley & Kivilu 2005).

Together with the devolving of powers to the school, and the increase in demands for site-based management, centralised control is reasserted through these quality assurance mechanisms. How, in this context, do schools manage curriculum and instruction? What are the responsibilities of various role-players in the school in a complex and intense

3 Abbreviated in the rest of the monograph to 'matric'.

period of school reform? And especially, how are these new demands managed in schools facing tremendous social pressures from poor school communities on the one hand, and scarce resources within the schools on the other?

The consideration of leadership in the South African context also has an important historical dimension. Fleish and Christie (2004) remind us that in three core functions apartheid undermined the authority and activity of principals, giving them '…no budgetary authority or influence over the flow of resources such as textbooks, little or no influence over the hiring and firing of staff and almost no curriculum decision-making powers' (2004: 102).

So in three key areas of principalship – financial management, instructional leadership and human resource management – principals in South African schools have little experience, and there is bound to be substantial confusion regarding who is responsible for what.[4] This inexperience is exacerbated by the dynamics of school reform described above.

In short, with regard to leadership, schools in South Africa are contending with multiple demands, including new relations to communities, policy change and increasing accountability, and a pressure to improve teaching and learning.

South African studies on leadership

The South African leadership research base is very limited. Studies on the needs of school managers, and the availability of training and development options for them, dominate the field (Krause & Powell 2002; Mestry & Grobler 2002; Sayed 2002; Tsukudu & Taylor 1995; Van der Westhuizen, Mosogo & Van Vuuren 2004). What these studies show is that most principals have not received adequate specialist training, particularly in financial management and instructional leadership. There is also some research focused on financial management in schools (Bush 2005; Bush & Heystek 2007), and on human resource management (Soudien 2001), in particular, in reference to the redeployment processes of the late 1990s (Gilmour 2001; McLennan 2000). Much research on the foregoing issues focuses on policy rather than actual practice. Bush et al. (2006), in their review of research on leadership and management, argue that most of the research into leadership is 'not conceptually rich', and assert the need for a theory of leadership relevant to the South African context.

What is the South African research base on the management of instruction specifically? Bush et al. (2006), in their comprehensive review, argue that 'there is very limited material on the management of teaching and learning' in South African schools. In particular 'there are no accounts of how school principals, and other school managers, exercise "instructional leadership" in their schools and seek to develop an effective culture of teaching and learning' (2006: 11).

4 See the case of *Schoonbee and Others* v. *MEC of Education, Mpumalanga and Another*. Here, in a case of the principal and SGB being suspended for mismanagement of funds, the judge ruled in favour of the principal, deputy principal and SGB, stating: 'The principal is an educator who manages the school professionally…Managing the finances is something that you cannot expect from him (the principal). The contention that the principal should be held accountable for the finances is an absurd proposition' (cited in Mestry 2004: 129). Mestry's conclusion is that '[t]o many principals, educators and parents the question of who is ultimately responsible and accountable for school finances remains unclear' (2004: 129).

Roberts and Roach (2006) attempt this in their study of what makes an effective leader. In their study of five effective schools, in which they attempted to identify good leadership practices, they found little erosion of teaching time by non-academic activities; learners and teachers moving quickly to class; and a low tolerance for loitering and unattended classrooms. They were unable to say anything about visions, values and expectations, but did address the issue of 'connection to the classroom' – the principal's direct involvement in instruction. The schools in that study were also found to employ specific instructional improvement strategies, such as afternoon classes or Saturday extra lessons, and employed data-driven decision-making. The sample for that study is too small to allow for any conclusions to be drawn, but the study assists in giving some direction as to what we might look for in the management of curriculum and instruction.

In summary, our knowledge of how principals manage curriculum and instruction in schools in South Africa is limited. Although we have detailed normative frameworks (often from elsewhere) regarding what principals *should* do, there is little consideration of the reality of the work of principals in particular contexts, and what they *do* do.

There is a different order of clues offered in relation to school management by the early school effectiveness studies in South Africa, however. These studies show empirically a number of school-level management practices that are associated with better-than-expected student performance in South Africa. What has been shown to be significant in terms of management variables in relation to improved student outcomes includes the following:

- The regulation of time (Gustafsson 2005; Van der Berg, Burger & Yu 2005).
- The monitoring of and support for planning and delivery in relation to curriculum coverage (Gustafsson 2005; Kanjee & Prinsloo 2005; Taylor & Prinsloo 2005; Van der Berg, Burger & Yu 2005).
- The procurement and management of books and stationery (Gustafsson 2005; Kanjee & Prinsloo 2005; Taylor & Prinsloo 2005; Van der Berg, Burger & Yu 2005).
- The quality assurance of tests and the monitoring of results (Kanjee & Prinsloo 2005; Taylor & Prinsloo 2005).

One of the key findings of this small group of studies is that resources are important, but it is 'not only the presence of school resources but how these are used which contribute to learning differentials' (Taylor 2007). Taylor argues that

> …key to the success of achieving any meaningful change in the quality of schooling for the majority of poor children is finding ways of enabling these schools to use their resources more efficiently. This is a central problem in South African schooling and one which we know least about. (Taylor 2007: 536)

This lends greater specificity regarding what factors we might look for in terms of what effective principals do in schools. The first factor is time regulation, which has been pinpointed in a number of studies over a period of time (Gustafsson 2005; Taylor, Muller & Vinjevold 2003). In particular, a recent study by Chisholm, Hoadley and Kivilu (2005) shows how principals' time is largely consumed by administrative activities.

The second factor is curriculum leadership and management, where management oversight – including of teachers constructing their plans, and the monitoring of curriculum coverage and management of textbooks and stationery – has been associated with positive effects on student performance (Kanjee & Prinsloo 2005; Taylor & Prinsloo 2005; Van der Berg, Burger & Yu 2005). Taylor (2007) also cites the work of Gustafsson (2005), who shows that more advice to teachers from management is beneficial.

The signals emerging from these studies have led Van der Berg (2005) and Bhorat and Oosthuizen (2006) to speculate about the importance of harder-to-measure aspects of student achievement outcomes, such as school management and teacher quality. Again, these analyses are generally conducted with school-level data and such variables are not well measured in the available school-level data sets (Lam, Ardington & Leibbrandt 2007). This makes it hard to be definitive about such factors. Although we do not have conclusive answers to what makes a good principal in relation to SAGOT in South African schools, we certainly have some clues.

In the next part of the review we define the difference between leadership and management and clarify the approach taken in this study. We then go on to look at the international research in leadership, and the broad theoretical approaches taken. The review then focuses on research related to instructional leadership specifically.

Definition of terms – leadership and management

The distinction between leadership and management is often made in the literature. Leadership tends to be equated with vision and values, and management with processes and structures. Another way of putting this is that leadership can be exercised throughout the school, by different people at different levels, while management, in contrast, is a structural position, which carries with it specific roles and responsibilities. The present study is concerned with management positions and particular roles and functions; however, it is also interested in how management is exercised through the organisation of the school. In thinking about leadership and management, the school is the primary unit of analysis in this study. The responses of principals, senior managers and teachers are considered in the analysis. The terms 'leadership' and 'management' are used interchangeably in this study to indicate both the positioning of managers within the organisation and their exercise of leadership in the various aspects of their role, as well as management processes that inhere in the structures and social relations of the school.

Elmore (2000) argues that direct involvement in instruction by principals is among the least frequent of their activities, and that a division of labour in schools has been remarkably stable over centuries. One would expect this to be the case in South Africa as well. In their research study, Bush and Joubert (2004) show that a large sample of principals in Gauteng do not regard themselves as instructional leaders. The approach adopted for the present study, therefore, was to capture management strategies and activities that might be undertaken by other actors in the school, as well as activities that principals engage in that might impact *indirectly* on curriculum and instruction. In other words, we are concerned primarily with the ways in which management creates the *conditions of possibility* for teaching and learning.

Conceptualising leadership – different approaches

Although seeing the relationship as indirect, both the international and South African research literature has identified the role of the principal as key in contributing to better student outcomes. There is consensus in the US and European literature, and increasingly also in South African research, that school managers play a crucial role in creating the conditions for improved instruction (Marsh 2002; Spillane 2004; Taylor 2007). What is less understood is *how* principals contribute. Grace (2001), in an overview of the approaches to leadership in the literature, draws attention to the tensions that exist in a consideration of school leadership – between more technicist, managerial approaches on the one hand,

and an approach that recognises context, and the moral, ethical and fundamentally social ways in which leadership in schools is constituted on the other. This tension is present in most of the approaches discussed below.

Different authors classify the leadership literature in different ways. Some categorise it in terms of the assumptions underlying particular approaches, while others adopt a more normative approach that focuses on delineating different 'styles' of leadership. Lingard et al. (2002) summarise the approaches in the literature in terms of trait theories, situational theories and transformational leadership. Similarly, Spillane, Halverson and Diamond (2004) identify five different approaches in leadership studies: trait studies; sets of behaviours, or leadership styles; contingency or situational approaches; a cognitive tradition; and institutional theory. Gunter's classification (2001) is one of the most useful, setting out in tabular form the key questions of the different approaches and some exemplary texts (see Table 2.1).

Table 2.1: Theories of leadership as classified by Gunter (2001: 69)

Theories	Leadership based on the following questions	Illustrative texts
Trait	What is leadership? Do I have the right qualities to be a leader?	Stogdill (1974)
Style	Do I know my preferred leadership style? Do I know how to obtain a balance between a concern for tasks and for people? Have I had the correct in-service training on the behaviours required to achieve the right style?	Blake and Mouton (1964)
Contingency	Have I reflected on the context that affects which leadership style is appropriate? Do I know how my subordinates will respond to particular styles?	Fiedler et al. (1977) Hersey and Blanchard (1982)
Transformational	Do I have a vision and a mission? Can I empower my followers to live the vision? How can I ensure my leadership has positive effects on the production of outcomes?	Burns (1978)

The criticisms levelled at the different approaches are similar in different accounts. Of trait studies, the major criticism is that they are anti-organisational and anti-professional (Elmore 2005), focusing as they do on individual and personal talents and charisma. The cognitive tradition, which focuses on leaders' thinking, values and beliefs, runs the risk of ignoring organisational, cultural and political issues. On the other hand, it is often argued that institutional theory, or situational approaches that see leadership as an organisational quality, run the risk of smothering human agency (Spillane, Halverson & Diamond 2004). These approaches are also criticised for emphasising technique over substance (Lingard et al. 2002), with the emphasis on 'right' behaviours and styles. The literature on leadership *styles* (see Sergiovanni 1984, for example) is largely normative, with a relatively weak empirical research base. Finally, criticisms of transformative leadership are concerned with its variable definitions and lack of clarity and, in some cases, its normative approach, not amenable to empirical verification.

There is the tendency in more recent research to focus on models or typologies of leadership, which straddle these different approaches. Leithwood and Duke (1998) provide a typology of six 'models of leadership': instructional leadership; transformational leadership (a focus especially in the North American context); moral leadership; participative leadership; managerial leadership; and contingent leadership. The point of the typology is to identify the different assumptions that underpin these different approaches.

Heck (1998) also presents a typology that draws out the epistemological positions, lenses and research orientations of different models. Leithwood and Duke (1998) contend that the six models provide a comprehensive framework for cross-cultural leadership studies, but this is in what they term 'Western social cultures'. What is meant by this term, and what the implications and usefulness of these cross-cultural leadership studies are in Eastern or developing world contexts, is not a focus of that review.

One of the more conceptually interesting projects, focusing on locating research at different levels, is the Queensland study, which attempts to draw a relationship between 'productive pedagogies' and 'productive leadership' (Lingard et al. 2002). The authors of that study attempt to unpack the complexity of leadership, defining it thus: 'leadership involves the complex interplay of the personal/biographical, the institutional/organisational, and the broader social, political and economic context' (2002: 67).

The work was further developed conceptually in Lingard et al. (2003), to which we return at the end of this review. They use the work of Bourdieu to draw together the different levels of individual, organisational and structural. The concepts of social/structural position, disposition and field enable them to consider 'the intersection of the structural location of the principal within the field(s) of education' (2003: 47), and how a principal develops particular dispositions. The fields in question are fields of social relations, within and extending beyond the boundaries of the school. Taking into account both the individual and structural elements of principalship, Lingard et al. (2003) attempt to deal with the structure/agency divide. We adopted this approach to orient the present study conceptually; the conceptual framework is elaborated below.

School effectiveness studies

The discussion above has focused on how leadership is conceptualised in the literature. What about the empirical evidence of the effect of leadership on student achievement outcomes? Although leadership is an important strand in current education policy, only small and indirect effects on student achievement outcomes have been shown (Barker 2007). More generally, Hallinger and Heck (1998) show, through a review of 41 studies in the UK since 1980, why the effects of the school principal on student achievement outcomes are both minimal and hard to detect. In particular, in relation to new privileged notions of leadership, clear relationships between particular forms of leadership and improved student achievement outcomes have yet to be established (Harris 2005). Hallinger and Heck (1998) and Harris (2005) emphasise that it is not exactly clear how the principal's role contributes to school effectiveness; that the influence on student learning is indirect. Leithwood et al. (2004) come to the same conclusion, arguing that the independent variables in making the connection between leadership and student achievement outcomes are too numerous to allow firm conclusions to be made. Similarly, Lingard et al. (2002) find no relationship between their measures of 'productive leadership' and student performance. One of the reasons they offer for this is that the relationship between leadership and student performance is indirect, and when data are

aggregated to the level of the school, variations in teachers, school environment and resourcing may mask any relationship between leadership and student performance (2002). Kruger, Witziers and Sleegers (2007) attempt to create a sophisticated chain of variables to link leadership and student performance directly, but show how such chains can become very long and complex.

Consequently, there is some consensus in the literature that leadership has an *indirect effect* on student outcomes through its *direct effect* on instructional organisation and culture (Kruger, Witziers & Sleegers 2007). Hallinger and Heck (1998) argue that researchers' questions have shifted from whether principals make a difference, to 'not only if principals have effects on school outcomes, but more particularly the paths through which such effects are achieved' (1998: 187). They contend that principals' primary influence on schooling outcomes is in shaping the school's direction – the setting of visions, missions and goals. We have referred to this as principals creating the conditions of possibility for teaching and learning. Another way of putting it is the establishment of a container within which effective teaching and learning can occur, and the setting of a climate of expectations.

Summary

What emerges from the review of the literature so far is that more normative definitions, such as transformational leadership, offer few aspects which are easily measurable and which can be closely linked to teaching and learning. Much of the literature renders principals' work as technical and managerial, leaving out what Thomson (2001) refers to as 'principals as embodied moral subjects dealing with complex and shifting realities' (2001: 5). He argues that the proliferation of categorisations and the managerial foci have resulted in 'scholarly abstractions', which are taken up by administrations and bureaucracies and 'become active in the construction of principals as technicians; they become disciplinary' (Thomson 2001: 16). Conceptually, much of the work on leadership also fractures the lens into a focus on the individual, the situational or the broader context. Later we see an approach by Lingard et al. (2002) that manages to draw these together.

Empirically, there is a substantial amount of normative work in the field, and 'lists' of desirable leadership characteristics. In the school effectiveness-type studies, there is growing consensus that the relationship between leadership practices and student achievement outcomes is indirect.

The review thus far has dealt with leadership and management studies in general. The remainder of the review considers studies that focus on the management of teaching and learning specifically.

Studies in instructional leadership

In the international literature there is a concerted focus on what is generally termed instructional leadership. Much of the US literature focuses on a number of key concepts: instructional leadership, distributed leadership, and transformational leadership (Spillane 2004) in relation to the issue of principals' role in instructional improvement. Increasingly the argument made in the US is that instructional improvement should be the main responsibility of school leaders (Murphy 2002). In general, the view is that it is possible to improve teacher quality and instruction by building professional communities of educators and focusing on instructional leadership (Burch 2007).

Researchers have pursued different lines of inquiry in this regard. There are a number of useful reviews of the field as well, including Hallinger and Heck (1998) and Leithwood et al. (2004). These authors, together with Southworth (2002), concur that there is a lack of agreement regarding what the term instructional leadership means. Southworth also argues that there is a lack of empirical evidence to support agreed-upon definitions. It is possible, however, to distinguish in this literature between broad and narrow views of instructional leadership, the former taking into account teacher cultures and school organisation, and the latter focusing on leader behaviours that influence student learning (Southworth 2002).

There are five themes that have been drawn from the instructional leadership literature that offer useful pointers for a consideration of the leadership of teaching and learning. These refer to the issues of pedagogical expertise, distributed leadership, linkages, social context, and categorisation of effective instructional leadership. These themes encapsulate some of the central issues in the literature, and also contributed to the design of the present study.

Pedagogical expertise

There are a number of studies that call attention to the importance of leaders' understanding and knowledge of curricula, pedagogy and subject knowledge – what we have termed 'pedagogical expertise'. Stein and Nelson (2003) raise the question of whether generic studies of leadership suffice in deepening our understanding of what it means to lead a school. They argue that '[w]ithout knowledge that connects subject matter, learning and teaching to acts of leadership, leadership floats disconnected from the very processes it is designed to govern' (2003: 446).

In their focus on principals' depth of subject knowledge, they argue that this is necessary – for principals to know good instruction when they see it, to encourage it when they don't, and to facilitate appropriate ongoing learning for staff.

Elmore (2000), recruiting the notion of loose-coupling, argues that such a vision for school management is unlikely. He asserts: 'Loose-coupling explains the elusive and largely unsuccessful quest over the past century for school administrators who are "instructional leaders"' (2000: 7). The loose-coupling is the outcome of the principal taking on the main task of buffering the instructional core from outside disruptions and intrusions into the technical core; and also protecting this from scrutiny and keeping up appearances of rational management of the technical core.

Elmore also argues that 'if the purpose of leadership is the improvement of teaching practice and performance, then the skills and knowledge that matter are those that bear on the creation of settings for learning focused on clear expectations for instruction' (2000: 12). The dominant theories of leadership, he argues – institutional, political, managerial and cultural – do not posit a direct relationship between what school leaders should be doing and the core function of the organisation: teaching and learning.

Nevertheless, both Southworth (2002) and Hill (2001) stress the importance of leaders' *understanding* of learning. Hill (2001) argues that principals' knowledge is often dated, based on 'increasingly distant memories of a former life in the classroom' (2001: 1). In the South African context, a study by Roberts and Roach (2006), on five effective schools, found that principals in these schools maintained what they termed a 'connection to the classroom'. In these schools all principals carried a significant load with respect to

teaching. They all taught examinable subjects, and at the Grade 12 level. Principals' own pedagogic expertise – how and whether it is deployed – is raised, therefore, as key in a consideration of the management of teaching and learning.

Distributed leadership

Starting with Gronn's preliminary taxonomy (1996), the notion of distributed leadership has become prominent in the instructional leadership literature, as well as in management studies, development and training bodies. Spillane, Halverson and Diamond (2004) provide perhaps one of the most theoretically developed accounts of this notion of 'distributed leadership', which is at the core of instructional leadership. Their account asserts that leadership is a property of a number of actors at the school level, and is not invested in the principal solely. In their terms, leadership is 'stretched over' a number of roles, including 'followers', and also over situations, which include artefacts and organisational structures within the school. In general, the concept of distributed leadership is criticised for being poorly defined, with little consensus around its precise meaning. Hartley (2007) argues that its 'conceptual elasticity is considerable. And this lack of conceptual clarity does not allow for a clear operationalisation of the concept in empirical research' (2007: 202). Other criticisms include the fact that the concept of distributed leadership ignores the micropolitics of the school, and does not take account of the socio-economic context of the school and its impact.

What is useful, however, is the notion of 'dispersal' of leadership, not just across different actors, but also across structures and artefacts. The approach taken in this study is that we should not expect the function of the leadership of learning to inhere primarily in the principal.

Linkages

A study that is located outside of the US/UK frame is that by Lee and Dimmock (1999), who consider curriculum management in Hong Kong. From their review of the literature, they identify three key themes related to curriculum leadership. The first is the extent to which the curriculum is actually managed, or whether it 'just happens' through teachers working interdependently. The second is the degree to which principals are involved in the management of curriculum, or whether it is left to Heads of Department (HoDs) and teachers. And the third is, when principals are involved, how they bring their influence to bear (Lee & Dimmock 1999). These questions are interesting in that they do not assume that principals do or should undertake instructional leadership. They also draw attention to *linkages* in an investigation of the connections between management, and curriculum and instruction. There are four dimensions to these linkages:

- Their characteristics – tight/loose, direct/indirect, formal/informal.
- The structures involved.
- The means of communication employed.
- The match between intention and practice.

A focus on linkages draws attention to how visions and missions translate in practice. It also focuses on the nature of linkages in relation to structures and communication systems.

Social context

A number of authors in the literature call attention to the importance of considering context. Those aspects relevant to context are: geographic location of the school (urban/suburban/rural); level of schooling (secondary/primary); small and large schools; the

student population, including socio-economic level and support agencies; the historical context; and the policy context. One of the key relationships identified is between the school and its community. This emerged as a key variable in the present study.

Categorisation of effective instructional leadership

Finally, much of the literature provides lists of what constitutes effective instructional leadership. Stein and Nelson (2003) stipulate the precise role of administrators with respect to leading instruction, and Elmore (2000) provides a list of functions that principals focused on instructional improvement should undertake. Spillane, Halverson and Diamond (2004) provide a similar listing, identifying from the literature several functions that are important for instructional leadership.

Some argue that Hallinger's model (2000), which consists of three leadership dimensions – defining the school's mission, managing the instructional programme, and promoting a positive learning climate – is the most researched. Leithwood et al. (2004) and Leithwood and Riehl (2005) concur with Hallinger, in their identification of four core sets of practices for successful leadership: setting directions, developing people, redesigning the organisation, and managing the instructional programme.

There is, in fact, remarkable consistency across this literature with regard to what constitutes effective leadership of curriculum and instruction. Leithwood et al. (2004), however, caution us to be sceptical about the 'leadership by adjective literature' (2004: 6). They argue that we need more robust understandings of leadership practices, and of responses to external policy initiatives and to local needs and priorities. The lists are useful, however, in drawing attention to the possibilities of instructional leadership, and to some of the aspects we may look for in research.

Conclusion – towards a research design

The literature shows that, conceptually, a single approach is likely to be less useful than an approach that straddles the individual, organisational and structural aspects of principals' work. A useful way of orienting the study was found in the work of Lingard et al. (2002) and Lingard et al. (2003), who draw on Bourdieu to consider different levels at which leadership operates.

The literature suggests that we take a *broad* rather than a narrow view (Southworth 2002) of instructional leadership in schools, considering mediated and indirect ways in which principals and other leaders impact on teaching and learning. As Thomson (2001) points out: 'Buying new school furniture involves thinking pedagogically, dealing with the micropolitical power circuits in the school and considering furniture against other school priorities' (2001: 16). The literature suggests that what principals might do that is of most importance and effect is create containers within which effective teaching and learning can occur. Organisational aspects, such as the management of time and structuring the day for learning, are of crucial importance in creating these containers and establishing expectations around good-quality teaching and learning within the school. What this meant for the present research design was that organisation-level factors were important to consider, above individual-level strategies or traits. These organisational aspects were privileged in the research design and data collection of the present study.

A contextualised account is necessary, considering the historical and policy context, devolved school management, the school's location within a particular social setting, and sets of relations, among other things. It is necessary to think about the ways in which 'principals respond to their school environmental contexts as they seek to shape organisational processes and outcomes' (Heck 1998: 52). Key considerations are the social relations within the school, and between the school and its environment. In particular, the literature highlights the importance of the relationship between the school and its community, and the flows of social capital between these two agencies.

Finally, the leadership literature strongly suggests that leadership is essentially *dispersed*. It is unlikely that principals will regard themselves primarily as instructional leaders. At the same time, a number of studies suggest that we need to take into account the pedagogical expertise of the principal. Both this latter individual aspect of management and a broader, dispersed view, which considers teacher cultures and school organisation, informed the design.

In order to sharpen our focus, within this broad sweep of the issues emerging from the literature, the next chapter presents a methodological note on the design of the study. The process of deriving the research questions and developing the data collection instruments for the study is also made explicit.

CHAPTER 3

A methodological note: designing the framework for the study

Bernstein (2000) introduces the notion of languages of description to elucidate the process of working between theory and data in research. A language of description is the set of concepts and constructs that allow both for the structuring of data and the reading, or analysis, of those data. Bernstein distinguishes between internal and external languages of description.

The internal language of description is the theory. The external language is a 'data-near device' (Moore & Muller 2002: 634); that is, the concepts and constructs that allow the theory to 'read' the data. This external language develops on the basis of deductive and inductive analysis, moving iteratively between the internal language and engagement with empirical data. The language of description thus developed provides 'the basis for establishing what are to count as data and provides for their principled reading' (Ensor & Hoadley 2004: 92).

The internal language of description, presented below, was drawn from the review of the literature. The external language (comprising largely the survey instruments) was developed through an engagement with pilot data collected via interviews with four secondary school principals in the Western Cape.

A typology of effective leadership (internal language of description)

In a review of the schools in their research, Lingard et al. (2003) develop a typology of issues to which school leadership must attend. This typology is presented at a higher level of abstraction than many of the lists in the literature, and can be used to encapsulate a number of the features of leadership identified above. Usefully, this typology is premised on Bourdieu's theory of field, and the metaphor of the game. In this way, the typology allows for an analysis of what Lingard et al. (2003) term a 'leadership habitus'. This entails 'having a feel for the game of leading the school as a field' (2003: 88). We draw loosely on the typology they provide, and elaborate the categories in the authors' terms, in terms of the literature reviewed above, and in relation to initial analyses of pilot data and the final data set. The categories of the typology comprise an internal language of description for the study. We make a distinction between individual-level issues (the focus of the first dimension), and school- or organisation-level factors (the basis of the remaining five dimensions). Thus most of the dimensions that we used to orient the study worked from the assumption that leadership is spread across the school and is an organisational asset rather than being attributable only or directly to an individual.

The six dimensions of the typology of leadership are outlined below.

1. A focus on curriculum, pedagogy and assessment as the central activities of the school

This dimension of the typology refers to the extent to which the focus of the school is on teaching and learning. It considers principals' subject expertise and 'connection to the classroom'. Principals' pedagogical expertise and its deployment are considered. This dimension may entail specific strategies for instructional improvement, such as homework policies and Saturday or afternoon classes. Crucially it involves ensuring that

the curriculum is covered. In Bourdieu's terms, this dimension refers to the ways in which schools produce specific values relating to the importance and centrality of teaching and learning; in short, the accumulation of cultural capital.

2. Vision, purposes and goals of the school

This dimension of the typology refers to the extent to which the school establishes a common purpose and direction (including a direction for change). Referring to Bourdieu, 'this involves building a shared sense of the position of the school in the larger field of schools, a sense of shared intention in the game as a whole, and the formation of symbolic capital' (Lingard et al. 2003: 87–88). This dimension may be incorporated in a school vision and mission that place emphasis on learning. It may also be encapsulated in the ways in which schools see their future direction, building on past successes or failures. Further, it may be seen in the culture of expectations for students that is established in the school. In the final analysis, the latter was taken to be the key issue around which vision was considered, and reasons for this are given in the analysis.

3. Dispersal of leadership

This dimension of the typology refers to the spread of leadership practices throughout the school. Who makes decisions, and who participates in processes of change? In Bourdieu's terms it is about how different actors shape the game, and influence the values and capitals in the school. This dimension is about the dispersal and centralisation of power, and attends to the division of labour within the school.

4. Social relations within the school

In Bourdieu's terms this dimension is about the positioning of different agents, and power struggles between them. It also refers to the internalisation of social structures and the development of habitus. Relations between teachers, and between teachers and school management, are crucial. In general terms, the culture or ethos of the school is captured by these considerations. The nature of social relations would also emerge in considerations of discipline, of disturbances in the school, and of levels of satisfaction of respondents with the working environment.

5. Management of resources

The effective management of resources entails organisational processes that ensure the smooth running of the school. Crucial in relation to this in the South African context would be the management and protection of time for teaching and learning. This dimension would also include the effective management and distribution of Learning and Teaching Support Material (LTSM), as well as the appropriate recruitment and deployment of teachers in the school in different subject areas, and the retention of teachers. Professional development activities and teacher performance incentives would also be important here. In Bourdieu's terms this dimension addresses how 'the game is structured and played in day to day ways' (Lingard et al. 2003: 88).

6. External relations of the school

This dimension of the typology is a consideration of the school as a field in relation to other fields. Key relationships considered here are between the school and the education department, the school and parents, and the community and other interest groups. Lingard et al. (2003) identify working across the boundaries of the school as a key leadership task. A crucial relationship to be considered is that between the principal

and school, and the SGB, which in South African policy is mandated to carry final responsibility for the governance of the school. In terms of the education department and the policy field we would need to consider the school leadership's mediation of policy and its implementation (for example, curriculum reform; and the IQMS). In terms of the relationship with the community, the focus would be on the identification and analysis of challenges, and the strategies to deal with these that have potential for optimising good schooling outcomes, both social and academic.

Research questions

What the literature provided was a means to develop a conceptual framework for considering how curriculum and instruction is managed in different schools. This framework was used to guide the development of the research questions and hypotheses. The main research questions were presented earlier as:

- How is curriculum and instruction managed across different types of secondary schools in different social contexts?
- What are the key dimensions of the management of curriculum and instruction that affect student achievement outcomes?

The sub-questions for the study were framed around the typology developed above:

1. To what extent is the school focused on curriculum, pedagogy and assessment? What pedagogical expertise does the principal hold?
2. How explicit are the vision, purposes and goals of the school; how are they related to curriculum and instruction; and to what extent are they shared? Does the school hold high expectations for student learning?
3. How is the leadership of curriculum and instruction dispersed across the school? Who takes most responsibility for these issues, and who is the main decision-maker? What is the division of labour in the school regarding curriculum and instruction?
4. How are the social relations within the school configured – between teachers and teachers, and between teachers and school management?
5. How are resources managed in the school to ensure its smooth running?
6. How are relationships between the school and parents, community, the education department and the broader policy context constituted?

Developing the questionnaires (external language of description)

The first attempt to develop an external language of description to collect and read the data entailed the development of constructs, indicators and axes of variation for the different questions. Questionnaire items from a principal, teacher and HoD survey questionnaire were then indicated alongside each question. An example of this process is shown in Extract 3.1.

Extract 3.1: An extract from the initial questionnaire mapping

QUESTION	CONSTRUCTS	INDICATORS	VARIATION	QUESTIONNAIRE ITEMS
To what extent are curriculum, pedagogy and assessment as the central activities of the school a focus in different schools?	Connection to the classroom	Principal's teaching	High-level, examinable subject Lower-level, non-examinable subject	P20; P21
		Principal's use of subject expertise	Teaches in subject trained to teach in Teaches in subject not trained to teach in	P10; P21
		Principal's pedagogical experience	More than 5 years teaching before principal Less than 5 years teaching before principal	P8
	Knowledge of pedagogy in school	Principal observes teaching	Frequency of lesson observations	P9

The second iteration of this mapping entailed a more detailed articulation of each of the indicators in terms of hypotheses. An example from the same question as that presented in Extract 3.1 is given in Extract 3.2.

Extract 3.2: An extract from the schema of research hypotheses

QUESTION 1: TO WHAT EXTENT ARE CURRICULUM, PEDAGOGY AND ASSESSMENT AS THE CENTRAL ACTIVITIES OF THE SCHOOL A FOCUS IN DIFFERENT SCHOOLS?

1.1 To what extent is the principal focused on curriculum and instruction?

Hypothesis A: Schools with greater SAGOT will have principals with a stronger connection to the classroom.
Indicators: Principal's teaching (P20; P21); Principal's use of subject expertise (P10; P21); Principal's pedagogical experience (P8).

Hypothesis B: Schools with greater SAGOT will have principals with better knowledge of teaching practices in the school.
Indicator: Principal observes teaching (P19) (T9 [Triangulate]).

Hypothesis C: Schools with greater SAGOT will have managers who allocate more time to issues of curriculum and instruction.
Indicator: Time spent on certain activities (P13).

This exercise was completed for all of the indicators in order to ensure alignment between the research questions, the working hypotheses and the instruments to be used to collect data. In the end a total of 29 hypotheses like those in Extract 3.2 were generated to guide the analysis of the data.

Using the notions of internal and external languages of description helped to make explicit the conceptual framework that was being used, and how that conceptual framework was translated into research instruments capable of collecting the appropriate data and allowing for their reading or analysis. In the next chapter the data collection methods deployed in the study are described.

CHAPTER 4

Methodology

Three research methodologies were deployed in the project:

- A desktop literature review.
- Interviews with principals.
- A survey.

The methodology entailed both qualitative and quantitative dimensions, incorporating closed survey responses, open survey responses and interview data. The *literature review* was presented above, and located the study and provided a conceptual framework for the study and its questions.

We *interviewed* four principals in the Western Cape. Conducted prior to the design of the survey instrument, these interviews were crucial in informing the survey design. The interviews lasted between an hour and an hour and a half. They were semi-structured interviews, guided by an interview protocol (see Appendix A). The interviews were intended to cover a wide range of issues pertaining to the management of curriculum and instruction that were derived from an initial literature review.

The *survey* was conducted in 200 schools: 100 in the Eastern Cape and 100 in the Western Cape. In each school three questionnaires were distributed: to the principal, a senior manager (deputy principal or HoD), and a teacher. This facilitated triangulation of responses to questions regarding the management of teaching and learning, and also allowed for a consideration of the distribution of leadership across the organisation. Collection of data from three sources was also intended to reduce bias, and to widen the 'angle of observation' (Schatzman & Strauss 1973). This was particularly important given that the study relied solely on the self-report of actors in the schools.

The survey questionnaires were distributed and collected in person by fieldworkers. The fieldworkers were trained to answer questions regarding the questionnaire, and also to ensure that all items were completed. The principal questionnaire can be found in Appendix B. The HoD and teacher questionnaires were abbreviated versions of this one, with minor differences in some items where appropriate.

Research ethics permission The questionnaire and the interview schedules were submitted to the HSRC Ethics Committee for approval. Principals agreed verbally (telephonically) to participate in the study. All participants agreed to participate in the study through the completion of a questionnaire. Before completing the questionnaire they were given and asked to read a research information sheet (see Appendix C).

CHAPTER 5

Data analysis

Student achievement gains over time

It is well known that schools in South Africa vary radically in terms of their levels of resourcing (both human and physical), the kinds of communities that they serve, and the student results that they produce. Many of these differences are the legacy of an extremely unequal education system, established under apartheid. The inequalities in schooling have been further entrenched in the post-apartheid era through the establishment of a quasi-market in education, where schools are able to set their own fees. In trying to establish a relationship between management practices and student achievement outcomes, then, we felt that it would be unproductive to examine schools in terms of their absolute scores on the matric exam. Rather, we were interested in whether schools were improving or declining on this measure.

We therefore used, as our dependent variable in the analyses, the difference between 2004 and 2006 scores or SAGOT. The matric results are a restricted measure of student achievement outcomes (see limitations below). However, since this is the one measure that is available for all schools for all years, it is the one we have chosen to use as the best possible representation of changes in student achievement outcomes over the years. In the study, we referred to those schools whose SAGOT had improved over the three-year period as 'improving schools', and those whose SAGOT had declined as 'declining schools'. Improving schools would include those schools that had maintained a high and steady pass rate over a three-year period.

Analytic procedures

Frequency counts and cross-tabulations were used to provide descriptive detail of the sample. Associations between SAGOT and other variables were investigated using linear regression. In each analysis, we used SAGOT as a continuous variable and, because the sample size was relatively small, a criterion of $p < 0.1$ to establish significance. Although a number of regression models were run, each was hypothesis-driven and we therefore did not make any corrections to the *p*-value. SAGOT (being an indication of gains over time) measures the difference between two scores, and therefore does not account for schools' absolute matric pass rates (i.e. a SAGOT score of 0 – no change – could equally apply to schools with matric pass rates of 95% and 20% respectively). In order to control for this, the 2004 matric pass rate was included in each analysis as a control variable. We also explored whether any of the following were significant and should therefore be included in the analyses as control variables: province, the urban/rural distinction, and former education department. Both province and urban/rural, when entered into separate analyses, were found to be significant, as were some of the former education departments. When entered into the same model, however, neither province nor the urban/rural distinction was found to be significantly associated with SAGOT, while the former House of Assembly (HoA) and Ciskei education departments *were* found to be significantly associated with SAGOT. We therefore retained former education department as a second control variable in all models. In addition, because Socio-economic Status (SES) is known to be strongly associated with educational outcomes, and because the fees charged by the school are a good indicator of the SES of parents, we explored whether school fees might also be an appropriate control variable. Since the variable was highly skewed, we used the log of school fees per annum (pa) as the control variable.

The variable of school fee category was found to be significantly associated with SAGOT, and we therefore retained it as a control variable in all models.

The sample – schools

Two provinces were selected for the study: the Eastern Cape and the Western Cape. These represent two provinces that vary significantly in terms of performance in the matric exam, and which also vary economically, politically and socially – differences that impact on the schooling system in particular ways (see Fiske & Ladd 2005). A sample of 100 schools was drawn from each province, and in each case the principal, a senior manager (deputy principal or HoD), and a teacher were approached to complete a survey questionnaire. The total number of returns in the survey was 195 schools: 92 in the Eastern Cape, 96 in the Western Cape, with an additional seven schools being excluded from the analysis (five because the principals were not available to complete the survey form, and the remaining two because neither a teacher nor an HoD was available to complete their forms). A further part of the sample was excluded during the course of the analysis. Only those schools whose principals had been in the headship position since 2004 were included. A total of 46 principals had been at their schools for less than the three years of the study, and so we excluded them from the analysis. A total of 142 schools remained in the sample. The final sample thus comprised 142 schools: 66 in the Eastern Cape and 76 in the Western Cape.

The second stratifier was former education department, and in each province a representative number of schools from the former Department of Education and Training (DET), HoA, House of Representatives (HoR), Ciskei, Transkei and from the new education department was selected. Table 5.1 shows the number of schools (by former education department) that were selected in each province. One should bear in mind when reading the table that the sample is representative of these two particular provinces, which do not have an even distribution of schools by former education department. For example, the number of HoA schools selected in the Western Cape is much higher (34 schools) than in the Eastern Cape (6 schools), where there are far fewer HoA schools.

Table 5.1: Number of schools (by province and former education department)

	Province		
Former education department	Eastern Cape	Western Cape	**Total**
DET	15	14	**29**
HoA	6	34	**40**
HoR	4	42	**46**
New education department	12	6	**18**
Ciskei	19	0	**19**
Transkei	36	0	**36**
Total	**92**	**96**	**188**

Table 5.2 shows the number of schools in each province, and whether the principal had been in his or her post at the school for the period of relevance to the study (2004–2007). The total number of schools in the original sample, and the number actually retained in the study, are also shown in Table 5.2.

Table 5.2: Number of schools (by province)

Province	Whether the principal had been at the school 2004–2007		Total
	Less than the duration (excluded from the final sample)	The duration or more (retained in the final sample)	
Eastern Cape	26	66	**92**
Western Cape	20	76	**96**
Total	**46**	**142**	**188**

As explained above, the schools were also stratified in terms of the change in their performance between 2004 and 2006 on the matric exam. In other words, gains and losses in terms of student performance were considered, rather than the absolute performance of a school in a single year. The most recent matric results available were those of 2006, and change was assessed over three years (i.e. change since 2004). An even number of schools that had experienced gains and decreases in their matric results were selected. In some cases (for example, that of several former HoA schools), insufficient numbers of these schools had experienced significant gains or losses, as their results varied only slightly around a high pass rate. Therefore, schools that had performed consistently also formed part of the sample. Table 5.3 shows the distribution of SAGOT. In total there were 12 consistently high-achieving schools (i.e. maintaining schools), 64 declining schools, and 66 improving schools. Only secondary schools were included in the study.

Table 5.3: SAGOT – number of maintaining, declining and improving schools

SAGOT	Eastern Cape	Western Cape	Total
Maintaining schools (consistently high pass rate)	3	9	**12**
Declining schools (–15% or more pass rate)	16	24	**40**
Declining schools (0 to –14% pass rate)	12	12	**24**
Improving schools (increase of 0 to +14% pass rate)	3	20	**23**
Improving schools (increase of 15% or more pass rate)	32	11	**43**
Total	**66**	**76**	**142**

The sampling strategy also aimed for a spread of urban and rural schools. The sampling was cross-checked in the survey, and principals were asked to provide their own classification of the school. The questionnaire offered the following options for the location of the school: A. Urban – township; B. Urban – suburban; C. Small town; and D. Rural. The first two categories were collapsed in determining the number of urban schools, and the last two categories, C and D, comprised 'rural' schools. The number of schools in these two categories is shown in Table 5.4 (note that one case had missing data for this question). Rural schools constituted 51% of the total sample and urban schools 49%.

Table 5.4: Number of schools (by urban and rural)

Urban/rural status	Eastern Cape	Western Cape	Total
Urban	15	54	**69**
Rural	50	22	**72**
Total	**65**	**76**	**141**

Finally, the schools in the sample had a range of school fees, and there were schools of different sizes in the sample. Table 5.5 shows the distribution of poor and rich schools in the sample, as deduced from the schools fees charged. Using fees as a measure of wealth, 42% of the schools in the sample could be classified as poor (with fees of R200 a year or less), while 18% of the schools (charging fees above R2 000 a year) could be classified as wealthy.[5]

Table 5.5: Number of schools (by school fee category)

School fees pa	Frequency	%
R0	8	5.6
R1–R200	60	42.3
R201–R400	25	17.6
R401–R800	14	9.9
R801–R2 000	10	7.0
R2 001 and above	25	17.6
Total	**142**	**100.0**

Table 5.6 shows the size of the schools as measured by the number of students in the schools (one school did not give its size). Again, it is clear that schools of different sizes were included in the sample.

Table 5.6: Size of schools (by number of students)

Number of students in the school	Frequency	%
0–200	8	5.6
201–400	21	14.8
401–600	23	16.2
601–800	24	16.9
801–1 000	25	17.6

5 The schools in the sample also represented a wide range in terms of their poverty quintiles. However, these quintiles reportedly lack reliability as indicators of the poverty level of the students' actual communities (see Hoadley 2006), and it was clear in this research that there were wide discrepancies between schools' reports of their poverty quintiles and their reports of the fees they charge. For this reason, we chose to use fees, rather than reports of poverty quintiles, as indicative of the poverty level of the school community. In addition, a number of schools were uncertain of their poverty quintile designation.

Number of students in the school	Frequency	%
1 001–1 200	12	8.5
1 201–1 400	19	13.4
1 401–1 600	7	4.9
1 601–1 800	2	1.4
Total	141	99.3
Missing	1	0.7
Total	**142**	**100.0**

Thus the majority of the schools were found to be between 201 and 1 000 learners in size. A small minority (eight schools) might be regarded as very small – that is, as having 200 or fewer learners – and nine schools as very large, having over 1 400 learners.

Summary

What the description of the sample for the survey presented above shows is a spread of schools in terms of their achievement on the matric exam, and their poverty level, size and urban/rural status. The schools were representative of the provinces in terms of their former education department designation. About half the sample was rural, and half the sample could be classified as poor.

Limitations

There are three serious limitations to this study.

Firstly, the use of matric results as a measure of school quality is limited. They do not differentiate between low average pass rates and high rates (which the mean aggregate mark of candidates within a particular school might tell us, for example), and they also do not indicate whether students were writing and passing on standard or higher grade. Also, the comparability of matric results from year to year has been questioned, especially due to the lack of standardisation of question papers. An Umalusi study conducted in 2004 was ambivalent regarding whether the improved matric pass rate was a result of easier exam papers or not. There was concern around the declining conceptual level in some papers, whilst the level of challenge of other papers had risen. Overall, however, there were fewer higher grade enrolments over the years, which would have an impact on the pass rate. There may be a number of other factors affecting the results of a school from one year to the next that have to do with things external to and beyond the control of the school.

Nonetheless, matric remains one of the few standardised measures of school achievement available for all schools. Schools are also not improving or declining uniformly, and we found an adequate sample of improving and declining schools within the categories of former education department, urban/rural and poverty level to constitute our sample.

The second limitation of the study is that although it focused on change in student achievement scores over time, it did not measure changes in leadership practices over time. Thus, a direct link between improved scores and particular management styles could not be made. An assumption underlying the study was that the perceptions and

facts reported by the principals at the time of the survey in 2007 reflected views held over a period of three years. Given the slow nature of change in schools, this was not an unreasonable assumption. Further, although there has been ongoing curriculum reform in schools, there were no major reforms in school governance or management in the period from 2004 to 2007. Only principals who had been in place in a particular school from 2004 to 2007 when they were surveyed were included in the final analysis. The study, rather than establishing causal relationships between management styles and strategies, and improved matric results, established what management practices in schools are associated with improvement in student learning. As such, the study has been able to suggest which practices would bear further research in a longitudinal study (the design necessary to establish causality in this instance).

Thirdly, as in many studies of this nature, the results of the study are based on self-report data. Thus responses could have reflected subjective perceptions or socially acceptable answers rather than being actual reflections of reality. Attempts were made in the development of the survey to capture facts rather than opinions, in an attempt to minimise the subjective bias. In addition, in several cases responses were triangulated between a principal, a deputy principal or HoD respondent, and a teacher. The fact remains, nevertheless, that the responses were not independently verified.

Although these limitations curtail the claims that can be made in this study, the purpose here is to open up the area of inquiry and lay the basis for future research work. We are not in a position to make any strong causal links between management practices and SAGOT but, rather, through confirmation of findings in the literature, and through pushing the boundaries of our knowledge in a modest way, we suggest how future inquiry might proceed. The research is in this sense exploratory and preliminary. It does represent, however, a more comprehensive picture of school management in South Africa than has existed up to now.

Findings

The principals: descriptive data

The school sample was described above. Before showing the regression analyses, this chapter gives further descriptive data of the principals in these schools in relation to their qualifications, experience, gender and central functions. The discussion in this section both gives some context to the analyses below, which relate management practices to SAGOT, and addresses the question of how curriculum and instruction is managed across different types of secondary schools in different social contexts.

In terms of gender, 148 of the principals (78.7%) were male, and 40 (21.3%) female, a gender ratio long established for principals, particularly in secondary schools. In terms of qualifications, Table 6.1 shows that the majority of principals were found to have an honours degree (55%), while 11% had a master's or doctoral degree.

Table 6.1: Qualification levels of principals

Qualification	Frequency	%
Post-secondary diploma or certificate	4	2.8
First degree	22	15.5
Post-graduate diploma or certificate	22	15.5
Post-graduate degree (honours)	78	54.9
Post-graduate degree (master's or doctorate)	16	11.3
Total	**142**	**100.0**

Principals were also asked to indicate how long each of them had been a principal in total, and how long each of them had been a principal at that particular school. Table 6.2 shows that the majority of principals had a number of years of experience as a principal; and Table 6.3 shows that most of their experience had been at their current school.

Table 6.2: Total years of experience of principals

Years of being a principal	Frequency	%
0–1 year	0	0.0
2–5 years	24	16.9
6–10 years	46	32.4
11 years or more	65	45.8
Total	135	95.1
Missing	7	4.9
Total	**142**	**100.0**

Table 6.3: Years of being a principal in current school

Years of being a principal in current school	Frequency	%
0–1 year	0	0.0
2–5 years	27	19.0
6–10 years	49	34.5
11 years or more	58	40.8
Total	134	94.3
Missing	8	5.7
Total	**142**	**100.0**

Table 6.2 shows that 46% of the principals in the sample were found to have over 11 years of experience. New principals, in their first year in the post or with less than four years' experience, were excluded from the sample (see limitations above).

Table 6.4 describes what principals reported as being the tasks or functions on which they spent the most time. The question offered a selection of nine activities, and included an open response category.

Table 6.4: Main tasks or functions of principals

Task or function	Frequency	%
Disciplining learners	35	24.6
Liaising with parents/SGB	4	2.8
Overseeing teaching and curriculum	23	16.2
Teaching	27	19.0
Dealing with issues in the community	1	0.7
Administration and departmental reporting	41	28.9
Supervising teachers	4	2.8
Financial management (including fundraising)	0	0.0
Liaising and meeting with the district/department	0	0.0
Other	4	2.8
Total	139	97.9
Missing	3	2.1
Total	**142**	**100.0**

Consistent with the literature, the responses of principals indicated that overseeing curriculum and teaching is not the main function for most principals; only 16% reported spending most of their time on this function. A low 3% reported spending most of their time supervising teachers. The single category that most principals reported as taking up most of their time (29%) was dealing with administration and departmental reporting. This

finding is consistent with the educator workload report of Chisholm, Hoadley and Kivilu (2005), in which principals also reported that administration took up most of their time at school. After administration, discipline was found to be the second largest category cited by principals as taking up most of their time. A further 19% reported 'teaching' as their main function. Managing relations between the school and parents and dealing with issues in the community were not found to be central functions for the vast majority of principals.

Finally, the study investigated whether there was specialisation of management roles and responsibilities in the school or whether management tasks were generic. The research question was framed as: Are there designated roles for management with respect to academic affairs and other responsibilities at the school?

Frequency tables show that the majority of schools were found to be either in the situation where the principal and the HoD did not agree on whether the management functions were specialised or generic, or where the management functions were generic. Only a very small minority of the schools, as can be seen in Table 6.5, were found to have clearly specialised functions (i.e. where the principal and the HoD agreed that roles were specialised). The research found that for the most part principals considered management roles in the school as being more generic, while HoDs regarded management roles in the school as being more specific. It is difficult to interpret these responses, however, and it would seem likely that they indicate a desirability bias rather than the reality. HoDs may *want* their roles to be more specific and, in general, principals may *desire* that other managers take on a wider range of responsibilities. It is not possible to draw any conclusions, however, given the lack of triangulation in the data.

Table 6.5: Management roles and responsibilities viewed as specialised or generic

	Roles as viewed by principals		Roles as viewed by HoDs	
Specialised or generic roles	Frequency	%	Frequency	%
Wide range of responsibilities and a generic management role	109	76.8	82	57.7
Specialised responsibilities and a specific management role	33	23.2	56	39.4
Missing	0	0.0	4	2.8
Total	**142**	**100.0**	**142**	**100.0**

In summary, these descriptive statistics present a particular picture of principals and the management of teaching and learning in a representative sample from two provinces. The most notable features from these analyses follow. It was found that the vast majority of principals were male, and most had at least an honours degree. Most of the principals had more than five years' experience as a principal (and most of this experience was at their current school). The principals were found to spend most of their time on administrative functions and disciplining learners. It is clear from this analysis that despite expanding roles and additional responsibilities, instructional leadership (as read through 'overseeing teaching and curriculum' and 'supervising teachers') was not found to be a function that took up the majority of many principals' time. It was unclear from the data whether managers' roles and responsibilities in schools were specialised or generic. In the next section, we consider management practices in the schools, and whether they can be said to make a difference to SAGOT.

The first research question – How is curriculum and instruction managed across different types of secondary schools in different social contexts? – has been partly answered in this section. The management of curriculum and instruction in secondary schools would appear to be dispersed. Principals were not found to identify themselves as instructional leaders, nor to spend most of their time on issues relating to managing teaching and learning. The question is addressed further in the next section.

Variables associated with SAGOT

This section comprises the main part of the analysis. Here we address the research question: What are the key dimensions of the management of curriculum and instruction that affect student achievement outcomes? The key dimensions that affect student achievement outcomes were found to be those that pertain to the creation of a container within which effective teaching and learning can occur in schools, and the establishment of positive social relations within the school and between the school and its community.

In the course of the discussion we also address in more depth the question of how curriculum and instruction is managed. The argument made in relation to this question is that the management of curriculum and instruction in secondary schools is generally dispersed. It is difficult to find direct management of learning, but important management and leadership aspects and strategies inhere in the organisation and the social relations of the school.

The presentation of these data is organised according to the typology and sub-questions introduced earlier, which address the six key areas of the management of curriculum and instruction.

1. Instructional focus of the school

The sub-question guiding this dimension of school leadership was: To what extent are curriculum, pedagogy and assessment, as the central activities of the school, a focus in different schools? The interest was in whether it was possible to see any direct effects on SAGOT of indicators related to instructional focus. Here we consider: the individual-level (i.e. principal-level) factors of the principal's focus on curriculum and instruction; the school-level factors of school strategies for instructional improvement, curriculum coverage, and monitoring of curriculum coverage; and the school-level factor of structuring the day for maximum student learning.

Principal's focus on curriculum and instruction

There were three ways in which we attempted to establish a relationship between the principal's focus on curriculum and instruction, and SAGOT. These were: whether the principal taught at the Grade 10 level or higher (see Table A.2 in Appendix D); whether the principal taught the subjects in which he or she had qualified (see Table A.3 in Appendix D); and the principal's pedagogical experience (i.e. how long the principal had been a teacher prior to becoming a principal) (see Table A.1 in Appendix D). This construct we termed 'connection to the classroom' (following Roberts & Roach 2006). None of these three variables was found to be significantly associated with SAGOT.

Two further measures of principals' focus on curriculum and instruction in relation to SAGOT considered whether principals were found to observe teachers in the school teaching, and whether principals in schools with greater SAGOT reported spending most of their time on issues of curriculum and instruction (see Table A.4 in Appendix D). Neither of these variables was found to be significant in relation to SAGOT.

On the issue of classroom observation, the assumption was that principals who observe teachers teaching would have a better knowledge of teaching practices in the school, and would be better positioned to intervene. If we look at a frequency of how many principals were actually found to observe teachers (see Table 6.6), we see that 91 of the principals (64%) reported that they observed teaching either often or sometimes.

Table 6.6: Percentage of principals who observe teachers (by former education department)

	Do you observe lessons?				
Former education department	Often	Sometimes	Rarely	Never	**Total**
DET	0	11	8	0	**19**
HoA	4	16	10	5	**35**
HoR	6	21	8	2	**37**
New education department	3	7	3	1	**14**
Ciskei	3	8	4	0	**15**
Transkei	4	8	9	1	**22**
Total	**20**	**71**	**42**	**9**	**142**

Table 6.7 shows that no relationship was found between principals' observation of lessons, and SAGOT.

Table 6.7: SAGOT and whether the principal observes lessons at least sometimes

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	44.211	5.353		8.259	.000
Matric pass rate 2004	–.643	.067	–.855	–9.655	.000
Log of school fees pa	1.905	1.202	.115	1.585	.115
HoA	13.787	5.595	.284	2.464	.015
HoR	2.152	4.809	.045	.447	.655
New education department	3.770	5.670	.052	.665	.507
Ciskei	–13.397	5.448	–.197	–2.459	.015
Transkei	1.241	5.001	.022	.248	.804
Principal observes lessons often or sometimes	–3.713	2.863	–.084	–1.297	.197

In terms of the lack of association between this variable and SAGOT, there are several possibilities: either that the demand characteristics of the question itself elicited a socially desirable response, or that principals do not intervene if they observe poor teaching, or that if principals intervene their interventions have no effect. We are unable to draw any certain conclusions, however, other than to show that, as with the other individual-level

factors of this dimension of school leadership, principals' observation of lessons was found to have no effect on SAGOT.

School strategies for instructional improvement

The hypothesis guiding this issue was that schools with greater SAGOT would have multiple strategies for instructional improvement (see Table A.5 in Appendix D). However, this variable was not found to be significantly associated with SAGOT, probably because of a lack of variation with regard to strategies. The survey question asked: Which of the following programmes does your school run regularly for Grade 12 students in the school?, and most schools reported using extra classes as their main strategy (see Table 6.8). This finding does not mean that extra classes do not affect matric outcomes; but one would need to explore further the conditions under which extra classes might be necessary or effective.

Table 6.8: Programmes for Grade 12 students

Programme	Frequency	%
Afternoon classes	93	65.5
Saturday classes	78	54.9
Motivational courses or camps	41	28.9
Special tutoring for certain students	43	30.3
Career guidance and psychological counselling	58	40.8

The question was addressed in a different way in another item in the questionnaire, where respondents were asked the extent of agreement with the statement 'The school has a well-worked-out plan for how to improve student results'. There was found to be a significant relationship between principals', HoDs' and teachers' perceptions regarding this statement, and SAGOT (see Table 6.9).

Table 6.9: SAGOT and whether the school has a plan to improve student results

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	19.858	12.352		1.608	.110
Matric pass rate 2004	–.637	.066	–.847	–9.647	.000
Log of school fees pa	2.468	1.200	.148	2.057	.042
HoA	12.588	5.585	.260	2.254	.026
HoR	3.425	4.815	.072	.711	.478
New education department	4.573	5.630	.063	.812	.418
Ciskei	–12.671	5.422	–.187	–2.337	.021
Transkei	–.234	4.850	–.004	–.048	.962
School has plan to improve student results	2.160	1.083	.133	***1.994***	***.048***

This suggests that having a strategy for improvement makes a difference, and that there is a possibility that extra classes, used in most schools, would vary in the extent to which they constituted a clear or efficient strategy for improvement.

A further hypothesis tested whether schools that individualised failure and offered students support were likely to achieve gains in matric pass rates. This was measured through an open response survey item asking: 'What do you do about Grade 12 students who are failing (for example, in the June exams)?' Responses were coded in terms of the individualising or collectivising of student failure. Responses were coded 'individualising' when mention was made of giving individual attention to students directly, or the response indicated that parents were called in. Some examples include:

- Analyse and discuss results with parents and learners on a person-to-person basis. Some parents never come when called. To discuss with teachers and arrange extra class.
- We put them on a special daily report which is monitored by all subject teachers, grade head and parents.
- One teacher selected for five learners to motivate to improve. Help with timetable to plan for September exams.

Responses were coded 'collectivising' when they referred to dealing with groups of students. This often entailed bringing in 'motivational speakers', and having afternoon or remedial classes, or giving students additional work. Some examples include:

- No special attention but continue to give extra classes for the whole class.
- Have extra classes for all the learners.
- They just get motivation that it's never too late to mend.

The results of the regression linking individualising and collectivising strategies in relation to failing students in the school as a whole found neither strategy significantly related to SAGOT (see Table A.6 in Appendix D).

Curriculum coverage

Curriculum coverage in the survey was measured by asking principals, senior managers and teachers the extent to which teachers in the school completed the curriculum, and averaging across their responses. At 60 of the schools (42.3%) there was agreement between all three respondents in each case that the curriculum was completed. A significant relationship was found between the extent of curriculum coverage reported in the schools and the schools' SAGOT. This is shown in Table 6.10. In short, the more respondents claimed that the curriculum was covered, the greater the school's SAGOT was found to be.

Table 6.10: SAGOT and curriculum coverage

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	15.899	10.251		1.551	.123
Matric pass rate 2004	–.710	.067	–.944	–10.517	.000
Log of school fees pa	1.550	1.178	.093	1.316	.191
HoA	11.693	5.503	.241	2.125	.035

→

Variables	Unstandardised coefficients: B-weights	Unstandardised coefficients: SE of B-weights	Standardised coefficients: Beta weights	*t*-score	Significance
HoR	1.336	4.694	.028	.285	.776
New education department	1.433	5.590	.020	.256	.798
Ciskei	–15.214	5.294	–.224	–2.874	.005
Transkei	–3.946	4.942	–.068	–.799	.426
Extent to which curriculum is completed	9.199	3.117	.210	***2.951***	***.004***

Monitoring of curriculum coverage

The research found that *who* in the school monitors curriculum coverage makes no difference to a school's SAGOT. What was interesting in deriving this non-significant result were the similarities and differences in the principals' and teachers' views in each case on who was responsible for monitoring curriculum coverage. In the main, principals reported that deputy principals or HoDs and subject heads were responsible (62.6% of the principals identified these groups), while 34.5% of the principals identified *themselves* as monitoring coverage. Only 0.7% of the principals identified teachers as monitoring their curriculum coverage themselves. Teachers, on the other hand, though broadly in agreement with the principals' reporting, were more likely to report that they were responsible (7.7%). The frequencies are shown in Table 6.11.

Table 6.11: Responsibility for monitoring curriculum coverage (according to principals and teachers)

Person responsible for monitoring curriculum coverage	According to principals: Frequency	According to principals: %	According to teachers: Frequency	According to teachers: %
Principal	49	34.5	33	23.2
HoDs or deputy principals	55	38.7	51	35.9
Grade heads	1	0.7	0	0.0
Subject heads	34	23.9	37	26.1
Teachers themselves	1	0.7	11	7.7
Total	140	98.6	132	93.0
Missing	2	1.4	10	7.0
Total	**142**	**100.0**	**142**	**100.0**

The reason for this disparity is not immediately clear. However, what the data do suggest is that it makes no difference to student achievement outcomes whether the principal, deputy principal, HoD, subject head or teacher manages curriculum coverage – or at least whether the perception of who manages it differs. What does matter, unsurprisingly, is curriculum coverage itself. The data do show, however, that within the schools the function is dispersed *across* the school, with senior managers (deputy principals, HoDs and subject heads) taking the most responsibility for this function.

Structuring the school day for maximum learning

This construct was measured by asking the three respondents in each school the extent to which they agreed with the statement 'Our school day is structured for maximum student learning'. Again, this question measured a perception and the findings may not reflect the reality in the school. Nonetheless, we can assume that a positive answer at the very least would reflect an orientation within the school. The structuring of the school day for maximum student learning was found to be significant to SAGOT. Table 6.12 shows the results of this regression.

Table 6.12: SAGOT and whether the school day is structured for maximum student learning

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	12.720	11.732		1.084	.280
Matric pass rate 2004	–.665	.065	–.884	–10.238	.000
Log of school fees pa	2.087	1.168	.125	1.787	.076
HoA	10.510	5.603	.217	1.876	.063
HoR	3.133	4.717	.066	.664	.508
New education department	3.451	5.547	.048	.622	.535
Ciskei	–12.426	5.334	–.183	–2.329	.021
Transkei	.423	4.787	.007	.088	.930
School day structured for maximum student learning	3.090	1.108	.196	***2.790***	***.006***

Summary

Three aspects of the dimension 'instructional focus of the school' emerged as significant: curriculum coverage, whether the school had a well-worked-out plan to improve student results, and the structuring of the day for maximum student learning. More *direct* interventions from the principal showed no effect and, in the case of curriculum, it did not seem to make a difference *who* managed curriculum coverage. The findings are supported by other empirical studies, which show the indirect effects of principals' management. Further, the analysis here begins to confirm that the management of curriculum and instruction is dispersed across the school, rather than being centrally a function of the principal.

2. Instruction and expectations

Initially the question of purposes, vision and goals of the school was the object of interest. We were interested in how these were related to curriculum and instruction, and the extent to which they were shared in the school. One of the problems in addressing this research question was that the survey followed a major, nation-wide teacher strike that had lasted a month; it was the biggest public sector strike since 1994. As a result, all of the schools surveyed were focused on recovery from the strike, and their missions and programmes were focused on preparation for the end-of-year exams. Consequently,

little variation was found in the vision, mission or programmes of the schools. What the literature review showed was that it is difficult to establish a link between school improvement and visions or missions. This may have something to do with selecting a methodology more appropriate to ascertaining how these visions, missions, purposes and goals translate in *practice*. At the level of espoused vision or mission, they are often generic, vague or symbolic.

What we were interested in, however, was linked to the vision of the school, and concerned the expectations of school staff regarding student performance. In the analysis this variable was found to be non-significant in relation to SAGOT. We also considered the level of curriculum offered and this too was found to be non-significant. These issues were grouped under the heading 'instruction and expectations'.

Another hypothesis guiding the research was that in improving schools there would be higher expectations for student performance and that the standard of the curriculum delivered would be perceived to be higher than in other schools. This, however, proved not to be the case; the results for expectations for student performance are shown in Table 6.13.

Table 6.13: SAGOT and expectations for student performance

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	33.781	10.100		3.345	.001
Matric pass rate 2004	–.660	.067	–.878	–9.857	.000
Log of school fees pa	2.063	1.198	.124	1.722	.087
HoA	13.428	5.628	.277	2.386	.018
HoR	2.643	4.854	.056	.544	.587
New education department	4.263	5.694	.059	.749	.455
Ciskei	–13.611	5.459	–.200	–2.493	.014
Transkei	–.132	4.905	–.002	–.027	.979
School has high expectations for student performance	.913	.932	.066	.980	.329

3. Dispersal of leadership

In the course of the analysis we have been considering the dispersal of leadership. Here we attempt to measure it directly, and consider whether the nature of leadership impacts on SAGOT. In considering the dispersal of leadership across the school we were interested in the division of labour around curriculum and instruction. We were also interested in who the main decision-maker was in matters of curriculum and instruction, and the forums for decision-making. Two research questions addressed these issues:

- Do all staff (i.e. teachers and management alike) make a contribution to decision-making in the school, and are these contributions valued?
- How often do subject heads and teachers meet?

Staff contributions to decision-making in the school, and whether these contributions were valued, were found to be non-significant in relation to SAGOT. Similarly, the frequency with which subject heads and teachers met was found to be non-significant to SAGOT (see Tables A.7 and A.8 in Appendix D).

These analyses do not suggest that these aspects of school management are not as important as others, or that they do not indirectly affect student achievement outcomes. All these analyses show is that these indicators were not found to have a direct impact on SAGOT.

4. Social relations within the school

The social relations within the school considered the relationships between teachers and managers, and between teachers themselves.

The first research question was: How positive are the relations between teachers and managers at the school? 'Positive relations' was a construct measured by summing three variables: the perception of the quality of communication between teachers and management; teachers' and managers' feelings of being supported and valued; and the perceived trust and collaboration between teachers and management. This scale had a Cronbach's alpha of 0.79, showing that it had high internal consistency. The hypothesis that in improving schools there would be positive relations between teachers and management was supported: a significant relationship was found between positive relations and SAGOT. The results are shown in Table 6.14.

Table 6.14: SAGOT and positive relations between teachers and management

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	22.645	12.342		1.835	.069
Matric pass rate 2004	–.647	.066	–.861	–9.825	.000
Log of school fees pa	2.284	1.194	.137	1.913	.058
HoA	12.034	5.665	.248	2.124	.035
HoR	3.279	4.832	.069	.679	.499
New education department	3.508	5.645	.048	.621	.535
Ciskei	–13.447	5.405	–.198	–2.488	.014
Transkei	–.526	4.872	–.009	–.108	.914
Positive relations between teachers and management	.668	.382	.120	***1.749***	***.083***

The second research question regarding social relations in the school considered the nature of interaction between teachers in the school. The hypothesis was that in improving schools teachers would work together collaboratively around issues of curriculum and instruction. This was measured by asking principals, senior managers and teachers the extent of their agreement with the statement 'In this school teachers work together and help each other with teaching and learning issues'. The responses from each questionnaire were summed, so that a variable was created in which the greater the extent of collaboration indicated by each person, the higher the value of this variable. This variable was found to be significantly related to SAGOT (see Table 6.15).

Table 6.15: SAGOT and collaboration between teachers

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	19.547	12.534		1.560	.121
Matric pass rate 2004	–.678	.068	–.890	–10.021	.000
Log of school fees pa	1.921	1.199	.116	1.602	.112
HoA	11.953	5.705	.246	2.095	.038
HoR	2.771	4.862	.058	.570	.570
New education department	–.821	6.020	–.011	–.136	.892
Ciskei	–17.294	5.540	–.250	–3.122	.002
Transkei	–1.388	4.933	–.024	–.281	.779
Collaboration between teachers	2.688	1.260	.149	***2.134***	***.035***

Finally, we were interested in whether there was consensus among staff about the problems confronting the school. We measured this by considering the extent to which there was agreement among staff regarding why classes were disrupted, if they were. The assumption behind the analysis was that in schools with greater cohesion there would be agreement regarding the challenges faced. However, consensus was not found to be related to SAGOT, regardless of whether we assessed whether all three respondents agreed, or whether only two respondents agreed.

In summary, with regard to the social relations of the school, a significant relationship was found between positive relations between teachers and management, and SAGOT. Further, collaboration between teachers was found to be significantly associated with SAGOT. It was confirmed that positive relations within schools and the establishment of a collaborative culture around teaching and learning are important. Again, this confirms the findings in the literature.

5. Management of resources

The research question guiding this dimension of leadership was: How are resources in the school managed, including those related to human resources, material resources, and

time as the central resource required for learning? We generated six categories to address the question: managing time for learning; staff performance incentives within the schools; LTSM; school staffing; professional development; and expenditure of funds on additional resources and instructional improvement.

Managing time for learning

The first question with regard to management of resources was whether time for learning was protected in the school. The hypothesis was that improving schools would have fewer disruptions and would experience less teacher absenteeism. In the regression, disruptions were shown to be non-significant to SAGOT. Teacher absenteeism, likewise, was shown to be non-significant to SAGOT. 'Teacher absenteeism' was scored so that a higher score meant lower teacher absenteeism (i.e. this analysis indicated that teacher presentism is not significantly related to improvements in matric pass rates).

Staff performance incentives within the schools

The survey investigated whether there were financial and non-financial performance incentive schemes for teachers within the schools. Financial incentives were investigated through a yes/no response, where principals indicated whether or not such incentives existed in the school. Non-financial incentives were explored through open response.

Table 6.16 shows how many of the schools (by former education department) were found to offer financial performance incentives.

Table 6.16: Financial performance incentives for teachers (by former education department)

	Are there financial performance incentives for teachers?		
Former education department	No	Yes	**Total**
DET	18	1	**19**
HoA	19	16	**35**
HoR	35	2	**37**
New education department	12	2	**14**
Ciskei	14	1	**15**
Transkei	21	1	**22**
Total	**119**	**23**	**142**

The table shows that very few schools were found to be able to offer teachers financial performance incentives, and that it is largely in former HoA schools that this occurs. The existence of financial incentives in schools has implications for the ability of schools to attract and retain staff. In the survey study, a total of 32 schools (15.4%) reported offering teachers non-financial incentives. Some examples of the types of non-financial incentives mentioned are shown below:

- Trophy for the best-performing educator.
- We collect money and make a braai for those particular teachers who did well.
- Awarded certificates for motivation purposes.
- Recognition for work well done during briefing meetings and in newsletters.
- Only a big Thank You.

- Acknowledgement in a staff meeting.
- Receive public praise from principal.
- Pride to be associated with this school.

The examples above show that most of the non-financial performance incentives are symbolic. Here the IQMS's 1% increase attached to meritorious performance must suffice, which translates into very little additional pay for teachers who put in extra effort. Recently the DoE announced plans for improved teacher incentive schemes, attached to substantial salary increments;[6] however, whether and how this will take effect remains to be seen.

The hypothesis generated for this question was that in schools with greater SAGOT there would be incentive schemes for teachers. This was analysed in relation to both financial and non-financial incentives. However, neither financial nor non-financial incentives were found to be significantly associated with SAGOT (see Tables A.9 and A.10 in Appendix D).

LTSM

The research question for this dimension was one that has been examined in a number of other studies conducted in South Africa (Gustafsson 2005; Kanjee & Prinsloo 2005; Taylor & Prinsloo 2005; Van der Berg, Burger & Yu 2005). The interest here was in both the sufficiency and management of LTSM as an indicator of effective management. As can be seen in Table 6.17, a significant relationship was found between effective management of LTSM, and SAGOT. However, no significant relationship was found between sufficiency of LTSM, and SAGOT. In other words, the literature is confirmed by the findings here – it is not the presence of resources that is most important, but how these resources are managed.

Table 6.17: SAGOT and effective management of LTSM

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	18.416	10.713		1.719	.088
Matric pass rate 2004	–.658	.065	–.875	–10.103	.000
Log of school fees pa	1.963	1.175	.118	1.671	.097
HoA	8.988	5.829	.185	1.542	.125
HoR	2.995	4.740	.063	.632	.528
New education department	4.924	5.585	.068	.882	.380
Ciskei	–14.263	5.325	–.210	–2.678	.008
Transkei	–.094	4.807	–.002	–.020	.984
Effective management of LTSM	8.418	3.331	.195	***2.527***	***.013***

6 Major salary increase for teachers, *Cape Times*, 18 September 2007.

School staffing

Another dimension of the management of resources is staffing levels in schools, in terms of both sufficiency and teacher qualifications. The relationship between good management practices and sufficient and well-qualified staff is unlikely to be a direct one. Due to a lack of resources and leverage, a good principal may yet be unable to attract or retain well-qualified staff. An interesting finding to emerge from these data, however, was that 68% of schools employed at least one SGB staff member as a teacher. Table 6.18 shows the range in the number of SGB teaching posts in schools (by former education department).

Table 6.18: Number of SGB teaching posts (by former education department)

	Number of SGB teaching posts					
Former education department	None	1–5	6–15	16–25	26–35	**Total**
DET	6	9	1	3	0	**19**
HoA	14	14	4	2	1	**35**
HoR	13	15	7	2	0	**37**
New education department	4	6	2	1	1	**14**
Ciskei	6	7	1	0	1	**15**
Transkei	8	11	3	0	0	**22**
Total	**51**	**62**	**18**	**8**	**3**	**142**

Table 6.18 makes it clear that the majority of schools (64.4%) were found to be supplementing their staff component, and that even poor schools were found to be doing this to some extent.

However, there is a possibility that within these constraints, some school principals are better able to position their schools than others. The two questions, of sufficiency of staffing levels and teacher qualifications, were considered in relation to schools with greater SAGOT. Student:teacher ratios ranged between 14:1 to 68:1, but were not found to be significantly related to SAGOT (see Table A.11 in Appendix D). Thus, in relation to sufficiency, no direct relationship was found between student:teacher ratios and SAGOT.

The question of whether there is a relationship between teacher qualifications and SAGOT also yielded a non-significant result (see Table A.12 in Appendix D). This is consistent with attempts made by researchers in school effectiveness studies elsewhere to use teacher qualifications as a measure of school quality; they are not a strong indicator.

Professional development

Also central to management structures and strategies for instructional improvement is the issue of professional development. The survey question pursued in relation to professional development was whether school management co-ordinated professional development activities for the teachers at the school, or whether this was mainly a function of the DoE. Given the extent of recent curriculum change, and the ongoing implementation of the NCS at schools, it would be expected that most professional development would be organised by the DoE, and that there would be little time left over for other professional development activities. The hypothesis for this issue was that schools with greater SAGOT would have professional development activities arranged by the school; however, this assumption was not supported by the regression analysis.

Expenditure of funds on additional resources and instructional improvement
A final factor considered in linking the management of resources to SAGOT was the question of the ways in which additional funds were spent in schools. The hypothesis was that in schools with greater SAGOT, additional resources would be directed at improving instruction. However, the finding was that school expenditure of funds on additional resources was not significantly linked to SAGOT. Table 6.19 shows what schools *did* spend additional funds on.

Table 6.19: School expenditure of additional funds

Focus of school expenditure	Frequency	%
School infrastructure	17	12.0
School maintenance	33	23.2
Outstanding payments for services	4	2.8
Additional LTSM	16	11.3
School events/celebrations	1	0.7
Professional development activities	2	1.4
Additional teachers or educational support	33	23.2
There are never additional funds	27	19.0
Total	133	93.7
Missing	9	6.3
Total	**142**	**100.0**

It is clear from Table 6.19 that when schools do have additional funds, about a quarter of them allocate this money towards additional teachers. Eleven per cent spend money on additional LTSM. Maintenance and infrastructure spending together were found to comprise the greatest expenditure by schools (35%), but it is clear that schools, when they have the money, spend it on aspects directly related to instruction. Related to this, it is interesting to consider the number of schools that employ teachers in SGB posts (see Table 6.18).

6. External relations of the school

The interests in this dimension of school management were in the relations between the school and contexts external to the school, such as the community, parents, the education department, and the broader policy and regulatory environment that impacts on the school. The research question informing these issues was: How are relationships between the school and parents, community, the education department and the broader policy context constituted?

Schools in the sample were located within very different kinds of communities, in terms of the SES of that community, but also in terms of whether the location was urban or rural. Schools were found to confront a range of external obstacles, which impacted on teaching and learning in the schools. Table 6.20 indicates the different issues arising in urban and rural areas. Further, issues confronting schools in different socio-economic contexts (using the proxy measure of school fees charged at the school for poverty level) are shown in Table 6.21.

Table 6.20: Main external obstacles confronting schools (by urban and rural)

External obstacle confronting schools	Urban	Rural	**Total**
Student late-coming	5	8	**13**
Drug and alcohol abuse	6	8	**14**
Parents not invested in students' schooling	19	18	**37**
Student absenteeism and dropout	5	3	**8**
Gang activity	1	0	**1**
Backlog in students' learning from primary school	23	22	**45**
None of these	3	2	**5**
Other	2	1	**3**
Missing	0	2	**2**
Total	**64**	**64**	**128**

The main external obstacles to achievement facing both urban and rural schools from the perspective of the school were found to be backlogs in students' learning from primary school, and a lack of parental investment in schooling. Both of these issues, however, were found to affect more of the poorer schools than the wealthier schools, as can be seen in Table 6.21.

Table 6.21: Main external obstacles confronting schools (by school fee category)

	School fee category						
External obstacle confronting schools	R0	R1–R200	R201–R400	R401–R800	R801–R2 000	R2 001 and above	**Total**
Student late-coming	0	7	3	1	1	1	**13**
Drug and alcohol abuse	0	7	3	1	1	2	**14**
Parents not invested in students' schooling	2	14	9	3	4	6	**38**
Student absenteeism and dropout	0	3	1	1	1	2	**8**
Gang activity	1	0	0	0	0	0	**1**
Backlog in students' learning from primary school	3	18	6	6	3	9	**45**
None of these	0	4	0	0	0	1	**5**
Other	0	0	1	1	0	1	**3**
Missing	0	1	1	0	0	0	**2**
Total	**6**	**54**	**24**	**13**	**10**	**22**	**129**

Student late-coming and drug use were also found to be prominent factors affecting learning across all schools, but more so in the poorer schools.

Five hypotheses were generated with regard to the question of the school and external relations. Each of these is dealt with in detail below.

The relationship between the provincial education department and the school
This issue addressed the question of whether the provincial education department had monitored the results of the school. The hypothesis was that schools with greater SAGOT would be more likely to have had their results explicitly monitored and discussed by the department. No significant relationship, however, was found in this regard.

The focus in the survey was specifically on schools' engagement with the provincial education department regarding *matric*. Table 6.22 shows the number of schools (by former education department) that reported having engaged with the department around their matric results.

Table 6.22: Interaction with provincial education department around matric results (by former education department)

	Did you meet with the department to discuss your school's matric results last year?		
Former education department	No	Yes	**Total**
DET	6	13	**19**
HoA	26	9	**35**
HoR	20	17	**37**
New education department	5	9	**14**
Ciskei	2	13	**15**
Transkei	2	20	**22**
Total	**61**	**81**	**142**

Table 6.22 shows that most of the schools (57%) had engaged with the department regarding their matric results, although significantly fewer former HoA schools had done so. The interest in the descriptive statistics was in whether this engagement had involved support, threat or both. This is shown in Table 6.23.

Table 6.23: Type of interaction between schools and provincial education department

Type of interaction between schools and provincial education department	Frequency	%
None	82	57.7
Threat	14	9.9
Support	42	29.6
Both	4	2.8
Total	**142**	**100.0**

In the regression analysis, a non-significant relationship was found between the nature of the interaction and SAGOT. Overall, the study's measurement of the relationship between the schools and the provincial education department in each case was very limited. Further research would be needed to explore this issue in more depth.

Parental support

One of the interests in the relationships with contexts external to the school was in the schools' characterisation of parental support. Tables 6.20 and 6.21 show that one of the most significant issues outside the school affecting teaching and learning was perceived by school staff to be parental involvement in students' schooling. The hypothesis generated for this particular issue was that schools with greater SAGOT would have parents who valued education and provided support for their children. However, the caveat to this question is that this support was measured according to principals', senior management's and teachers' *perceptions* of parental support. It may be that declining schools have a culture of 'blame' within the school, placing the locus of control for student achievement outcomes primarily outside the school. The question can therefore be read in terms of expectations. Nonetheless, a significant relationship was found between schools that reported parents who placed a high value on education and offered support for their children's education, and SAGOT. The results of this analysis are shown in Table 6.24.

Table 6.24: SAGOT and parental valuing of and support for education

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	21.126	6.269		3.370	.001
Matric pass rate 2004	–.751	.064	–.998	–11.763	.000
Log of school fees pa	1.734	1.099	.104	1.578	.117
HoA	8.386	5.250	.173	1.597	.113
HoR	4.835	4.450	.102	1.087	.279
New education department	2.741	5.213	.038	.526	.600
Ciskei	–14.742	4.979	–.217	–2.961	.004
Transkei	–3.239	4.535	–.056	–.714	.476
Parental valuing of and support for education	2.107	.410	.368	***5.137***	***.000***

Schools' understanding of policy

The question posed in this dimension of external relations was how well the school understood policy. The hypothesis generated was that schools with a better understanding of policy would have greater SAGOT. A single policy – the IQMS – was used as an example in the survey. However, no significant relationship was found in this instance (see Table A.13 in Appendix D).

The SGB and the school

The question underlying this issue was whether the relationship between the SGB and the school was a constructive one. The hypothesis generated was that schools where governing bodies were willing to help the school, whether they had the skills and capacity or not, would show greater SAGOT. In other words, this would be an indicator of consensual relations between the school and the SGB, as perceived by the principal. There is a possibility that this finding indicates a *perception* of support, rather than *actual* support. However, we also asked about the principal's perception of the *actual* capacity and resources of the SGB. The hypothesis here was that those schools where SGBs were not only willing to help but also had capacity and resources would show even greater SAGOT. However, only the SGB's willingness to help was found to be significantly and positively associated with SAGOT, as shown in Table 6.25.

Table 6.25: SAGOT and SGB's willingness to help

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	29.031	7.308		3.973	.000
Matric pass rate 2004	–.657	.065	–.873	–10.083	.000
Log of school fees pa	1.350	1.209	.081	1.116	.266
HoA	15.060	5.520	.311	2.728	.007
HoR	2.865	4.737	.060	.605	.546
New education department	4.785	5.583	.066	.857	.393
Ciskei	–13.567	5.331	–.200	–2.545	.012
Transkei	.037	4.809	.001	.008	.994
SGB willing to help	15.331	6.101	.159	***2.513***	***.013***

The lack of capacity of SGBs in poor contexts, especially in terms of skills and resources, has been well documented (DoE 2004). What the present analysis shows is that irrespective of ability or resources, willingness of parents to help (i.e. a positive disposition towards the school) was found to be positively associated with SAGOT.

Table 6.26 reports the frequency of schools with SGBs willing to help.

Table 6.26: SGB's willingness to help (by former education department and school fee category)

Former education department	SGB willing to help	School fee category						Total
		R0	R1–R200	R201–R400	R401–R800	R801–R2 000	R2 001 and above	
DET	No	0	0	0		1	0	**1**
	Yes	2	13	1		1	1	**18**
HoA	No		0	0	1	0	0	**1**
	Yes		9	5	5	5	10	**34**

Former education department	SGB willing to help	School fee category						Total
		R0	R1–R200	R201–R400	R401–R800	R801–R2 000	R2 001 and above	
HoR	No		0	0	1	0	1	**2**
	Yes		9	7	6	2	11	**35**
New education department	No	0	0	1		0	0	**1**
	Yes	1	8	1		1	2	**13**
Ciskei	No	0	1	0	0			**1**
	Yes	1	8	4	1			**14**
Transkei	No	0	1	0				**1**
	Yes	4	11	6				**21**

Table 6.26 shows that HoA and HoR schools were found to be most likely to have SGBs willing and able to help. However, the majority of SGBs across all schools were found to be judged by principals to be willing to help but lacking the necessary resources or skills. Table 6.27 shows the frequency (by SAGOT) of schools likely to have SGBs willing and able to help.

Table 6.27: SGB's willingness to help (by SAGOT)

SAGOT	SGB willing to help		Total
	No	Yes	
Declined more than 15%	1	39	**40**
Declined 0–15%	3	21	**24**
Improved 0–15%	1	22	**23**
Consistently high results and radical improvers	2	53	**55**
Total	**7**	**135**	**142**

The final model

Once these hypothesis-driven analyses were completed, two other interesting questions arose from the results presented above.

First, we wondered if structural characteristics (gender of principal, school size or former education department) might predict whether a school's matric results improved or declined. Using these variables in a discriminant analysis, it was established that, if we categorised SAGOT into two categories (improvers and maintainers versus decliners), using these variables we could correctly classify only 62% of the schools. We found that if we used a more fine-grained version of SAGOT (big improvers and maintainers, small improvers, small decliners, large decliners), the predictive value of these variables dropped to 41.7%. Although these results are better than chance, it does mean that these variables do not definitively predict a school's student achievement outcomes. In other words, while size of school, former education department, and principals' gender may play a role in a school's SAGOT, other variables also play a large role.

Second, we had observed that the following variables were significantly associated with SAGOT:

- Extent to which the curriculum is completed.
- Structuring of the school day for maximum student learning.
- Effective management of LTSM in the school.
- Positive relations between staff members at the school.
- Collaboration between teachers at the school.
- Parental valuing of and support for education.
- SGB's willingness to assist in the school.
- Whether the school has a plan for improving student results.

Our next step was to enter all of these variables into a model, to see which remained significant. We used the criterion of $p < 0.05$ to determine significance.[7] The results are shown in Table 6.28.

Table 6.28: Final model

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	–19.806	16.974		–1.167	.246
Matric pass rate 2004	–.796	.068	–1.045	–11.687	.000
HoA	6.644	5.550	.137	1.197	.234
HoR	4.797	4.495	.101	1.067	.288
New education department	–.937	5.622	–.012	–.167	.868
Ciskei	–17.475	5.182	–.253	–3.372	.001
Transkei	–5.681	4.671	–.099	–1.216	.226
Log of school fees pa	.577	1.175	.035	.491	.625
Average of curriculum completed	7.100	3.028	.161	***2.344***	***.021***
Effective management of LTSM	2.477	3.745	.057	.661	.510
SGB's willingness to help	12.323	5.775	.130	***2.134***	***.035***
School has plan to improve student results	–.826	1.337	–.048	–.618	.538
Positive relations between staff members	.142	.605	.023	.235	.815
School day structured for maximum student learning	.784	1.259	.049	.623	.535
Parental valuing of and support for education	1.592	.526	.274	***3.027***	***.003***
Collaboration between teachers	.642	1.527	.036	.420	.675

7 Using the stricter criterion of $p < 0.01$ to determine significance, only parental valuing of education remained significant.

This model suggests that, after controlling for all other variables, the following variables remain significant: curriculum coverage, parental valuing of and and support for education, and the SGB's willingness to help. This does not mean that the other variables are not important, but that when all other variables are held stable, these three variables emerge as making the greatest difference to SAGOT.

CHAPTER 7

Conclusions

The poverty level of the school, which we derived in this study from the school fees charged, was found to make the biggest difference to a school's SAGOT. This confirms the broader research base on the strong relationship between SES and student achievement (see, for example, Burns 2001; Lam 1999; and Louw, Van der Berg and Yu 2007). Poorer schools were found to be more likely to experience a decline or small improvement in their matric results over time. Once we had controlled for SES, the interest in this study was in whether we could see any significant effects of school management on SAGOT.

There were six dimensions of leadership that we were interested in measuring. These were:
1. Instructional focus of the school.
2. Instruction and expectations.
3. Dispersal of leadership.
4. Social relations within the school.
5. Management of resources.
6. External relations of the school.

Of the 29 hypotheses that we developed for these six dimensions of leadership, the regression analyses resulted in eight factors showing significance in relation to SAGOT. Table 7.1 shows these significant variables, already identified in the final model (see Table 6.28). Here they are presented as constructs of the relevant dimensions that were measured.

Table 7.1: Leadership dimensions and significant variables

Dimension	Construct
Instructional focus of the school	• School curriculum is covered • School has a well-worked-out plan to improve student results • School day is structured for maximum student learning
Instruction and expectations	
Dispersal of leadership	
Social relations within the school	• Positive relations staff members at the school • Collaboration between teachers at the school
Management of resources	• Effective management of LTSM in the school
External relations of the school	• Parental valuing of and support for education • SGB's willingness to help in the school

There are several conclusions that we can draw from the results of the regression analyses. Bearing in mind the limitations of the study, the conclusions – though exploratory – do confirm the findings of the literature, and provide greater specificity with regard to what we might look for in future research studies of school leadership in South Africa.

Learning-centred school

What the findings show is the central importance of the instructional focus of the school. This is given specificity in the constructs that emerged as significant, especially curriculum coverage. Perhaps the most important function of the school is to ensure that the curriculum is covered. Without this coverage students' chances of learning and achievement are greatly diminished. It is not surprising, therefore, that this variable was found to have a strong relationship to SAGOT. There is a growing body of work at the level of both the classroom and the school that indicates the importance of curriculum coverage (see Reeves and Muller 2006 for an excellent example), and this is confirmed here. Relatedly, that the day is structured for maximum student learning was also found to be significant. Perceptions around whether the school had a well-worked-out plan to improve student results also emerged as significant. What the analysis provides is a specification of the central aspects of instruction on which an improving school might focus.

What is interesting is that none of the individual-level factors, especially those concerned with principals' pedagogical expertise and 'connection to the classroom', were found to be significant. The study suggests, rather, the importance of a broader, institutional view of instructional leadership, as alluded to in the literature, which emphasises teacher cultures and school organisation rather than focusing only on individual teacher and manager behaviours that influence student learning (Southworth 2002).

Positive school culture

Teacher cultures as read through within-school relations also proved significant in the analyses. Specifically, positive relations between teachers and management, and collaborative relations between teachers, were found to be positively associated with better student achievement outcomes. The latter finding is one that is also stressed in the literature (see Hargreaves 2001, and Darling-Hammond and Sykes 1999, for examples). The link between a positive school culture and management practices is indirect. However, good social relations among staff are unlikely to be established and maintained if not supported by the principal and senior management. In the leadership literature, there is growing evidence of the importance of the establishment of 'professional learning' subcommunities in schools (Bryk & Driscoll 1988; Newmann & Associates 1996). What these entail in the South African context, and what the primary focus of such groupings might be, requires further research and would deepen our understanding of how social relations within schools either support or impede teaching and learning.

Positive home–school relations

What was perhaps more surprising in the analysis, and the issue that emerged as most significant in the final analysis, was the importance of the relationship between parents and the school. Again, good relationships between the parent community and the school are not necessarily attributable to direct management practices. In the analysis, principals reported spending little time on liaising with parents and the SGB, or dealing with issues in the community. We have no way of telling from these data whether these relationships were directly affected by the principals or whether a particular management strategy fostered good relationships. Nonetheless, the development of 'social trust' (Sebring & Bryk 2000) between the school and community was found to be key. It is also worth bearing

in mind that this emerged as significant *after* controlling for SES. In other words, in all schools, regardless of the poverty level of the community, supportive parents willing to assist the school were found to make a difference to the improvement or decline of student results at that school.

The interpretation of this finding is complicated, however. Based on perceptions of the school, the finding could reflect a culture of blame in schools that are faring poorly, and who place the responsibility for student achievement solely on the homes of students rather than the school. The finding, rather than being the outcome of any management practice, could also be a reflection of the types of practices and values in the home that are contributing to better student achievement outcomes. Thus the finding, although showing significance in the regression, is suggestive and requires further investigation.

Nonetheless, there are suggestions in the management literature that beyond SES effects, school leadership can significantly contribute to families' educational cultures – the academic support and guidance, and the expectations and aspirations that exist in the homes of students (Henderson & Berla 1994). Through strategies such as parent education, home visits, and neighbourhood meetings, for example, families can be assisted in acquiring and developing resources to help their children (Epstein 2001). Parent education and home–school relationship enhancement programmes are yet to be trialled, researched and considered for their effectiveness in South Africa. This research does begin to point, however, to their possible importance.

Good resource management

Finally, confirming a number of South African studies, the management of LTSM was also found to be a significant variable in the analyses. The management of staff, and the management of other financial resources, did not emerge as significant. In relation to instruction in particular, however, making sure that textbooks and learning materials are available and well controlled has been a stable finding in local research for some time (see Taylor, Muller and Vinjevold 2003). In short, it is not so much the sufficiency of resources, but their effective management, that is important.

Dispersed leadership

Dispersal of leadership did not prove significant to SAGOT, and neither did the culture of expectations within a school. What Table 7.1 does show, however, is that various *aspects* of the six dimensions identified from the literature were found to be significant. We can therefore make the argument that the importance of leadership lies across various dimensions, rather than inhering strongly in a particular dimension. A tentative claim can be made that successful leadership of curriculum and instruction involves the ability to oversee a wide range of functions, most of which do not relate directly to teaching and learning.

We can also make the argument that although dispersal of leadership emerged in the study as not significantly related to SAGOT, descriptively the study showed that leadership of curriculum and instruction was dispersed. This is an explicit finding – only 16% of the principals identified overseeing curriculum and instruction as their main task. About a third of principals claimed that they were primarily responsible for ensuring curriculum coverage, whereas the majority stated that this was the responsibility of the senior managers. The fact that the management of curriculum and instruction was found to

be dispersed has a number of implications; these refer to training, and who is trained in what functions to ensure the good leadership of teaching and learning. But this fact also points to the need to develop positive and collaborative teacher relations within the school, which allow dispersed leadership to operate effectively. It is not surprising that in the management literature the concepts of distributed leadership and teacher collaboration seem to be merging. This makes sense, as it would be difficult to support dispersed leadership without strong teacher cultures. Again, this bears further research.

Organisational assets

The discussion of the dispersed nature of leadership above highlights that leadership is 'embedded in social relationships and organizations' (Leithwood & Rhiel 2005: 13). It is not only an individual or personal phenomenon. In the present study, the significant factors from the analysis are not easily attributable to an individual, but rather refer to *organisational assets* within a school. While the school principal may be responsible for developing these characteristics within a school, it is not possible to attribute them to individual traits, individual strategies or particular expertise. The conceptual framework adopted for the study placed the organisation at the centre of the analysis, and a consideration of individual leadership 'traits' was backgrounded. This is a limitation of the study. However, the conceptual framework was derived from the literature, which argues persuasively that the effects of leadership on student achievement outcomes are indirect and pertain primarily to creating good conditions for learning to happen.

Recommendations

What recommendations might flow from this research for policy, or for the training of school principals? The research suggests that in thinking about training for principals we pay attention to the definition of instructional leadership provided by Spillane, Halverson and Diamond (2004): 'the identification, acquisition, allocation, co-ordination, and use of the social, material, and cultural resources necessary to establish the conditions for the possibility of teaching and learning' (2004: 11). We have no desire to generate our own list of desirable leadership qualities here. Rather, this research confirms the dominant findings in the literature: that the critical function of school leadership is to create a positive container for learning to happen.

It is interesting to note that in the proposed ACE policy for that diploma to replace all others, there is a strong emphasis in the assessment criteria on desirable traits for school leaders; and 'personal qualities' that principals are supposed to emerge with dominate the specification of learning for the course. The curriculum is heavily influenced by the literature on transformational leadership. There are very few mentions of practical or concrete organisational practices at which principals may become adept, and little instruction focusing on the broader social context within which schools are located and which needs to be understood by school principals. It would seem that we know enough by now to move away from this kind of individual-level, generic specification to more deliberate and practical interventions to help principals manage curriculum and instruction in their organisations better.

Finally, it is true, even in poorer schools, that willing parents concentrate in certain schools while struggling schools tend to leak social and cultural capital over time. However, the finding around the importance of the parent community, and their support for schooling, should make us pause and consider what kinds of interventions at the

interface between the school and community we might make to improve home–school relations. We need to consider in what ways we might include, educate or empower parents to exercise what is a clear predictor of SAGOT: their support for, and positive relationship with, the school that is educating their children. We also need to take seriously, in the ongoing training of principals, ways to develop positive social relations both within the school and between the school and its community.

Further research

The findings presented in this study are preliminary and tentative. No causal relations or strong associations can be derived from the analyses presented here. The limitations are clearly spelt out. What the research does provide is a platform for further investigations of school leadership, some aspects of which have been spelt out in this chapter. We need to know more about which specific management strategies are deployed in schools that are succeeding, especially those schools in poorer communities where the obstacles to good teaching and learning are great. Further research into school–community relationships would also be useful. We need to understand better what fosters positive relationships between schools and their communities, and find ways of supporting these relationships without compromising the integrity of the school as a learning organisation. In other words, rather than recasting the school as a community resource, we need to find ways in which the community can support the work of the school.

The research presented here attempted to obtain a broad picture of the management of curriculum and instruction in schools. Any one of the dimensions identified could be explored in a more delicate and penetrating way. There is also clearly a need for good qualitative studies that give some insight into the processes involved in managing schools, especially those that are declining significantly, or improving beyond expectation. It is hoped that this research provides a starting point for these further investigations.

APPENDICES

Appendix A: Interview protocol

PILOT: PRINCIPAL QUESTIONS

INTRODUCTION
What do you spend most of your **time** on in an average week?
What is the major **challenge** you face as a principal?

FOCUS ON CURRICULUM, PEDAGOGY AND ASSESSMENT
Do you visit the **classrooms** of teachers? When you visit do you go to just pop in, or do you ever watch them teach?

What do you do when a teacher in the school is **struggling** with teaching?

What were the **matric** results last year? Were they up or down from the year before? Why up/down/how maintained? Any strategies for improvement?

Do you have a system of **monitoring** student results? What is it?

Who decides on what teacher **professional development** courses teachers will go on? If you, or the school, how is the decision made?

What extra mural activities or outreach activities are made available at the school?

VISION, PURPOSES AND GOALS
What is the **ethos** of the school? What makes this school different/special?

Could I have a copy of your **vision** and mission statement? To what extent do you think staff are aware of and **agree** with these? What are the **challenges** to realising them in practice? What **structures**? How do you **communicate** them?

DISPERSAL
Do you **share** responsibilities in the school? If yes, how? Who **helps**?

Tell me about any **committees** you have in the school that relate to curriculum or teaching and learning. How do these work?

If a Grade 10 teacher is setting a maths paper, who, if anyone, would look at the paper beforehand? Who would do ongoing **monitoring** of this teacher's results?

What were some of the challenges in implementing the new curriculum (**NCS**)? Who in the school was responsible for ensuring that teachers knew what they had to do and that they understood the new curriculum?

Do you **teach**? How much, what subject?

Who is the main person in the school responsible for **academic** issues?

SOCIAL RELATIONS WITHIN THE SCHOOL
How do teachers in the school **plan** their teaching? Do you ever look at teachers' plans? If not, who does? If yes, what do you look for? Who oversees what teachers will **cover** in a term, and whether they cover it?

Do you have contact with other **principals**? From where? About what?

How do teachers in the school respond to management?

How often do management and teachers get to **talk** about issues of teaching and learning and curriculum, if at all?

MANAGEMENT STRUCTURES
What are some of the ways of **organising** things at the school? What **systems** have you set up?

Do you have a problem with **student absenteeism**? Why or why not? How do you manage it?

Do you have a problem with **teacher absenteeism**? Why or why not? How do you manage it?

What are the main things that **disrupt** teaching and learning time? What do you do about them?

Do you have all the teachers you need, **qualified** in the subjects that they teach?

Do you have all the **LTSM** that you needed for this year? If not, why not?

RELATIONSHIPS BETWEEN THE SCHOOL AND PARENTS, COMMUNITY, THE EDUCATION DEPARTMENT AND THE BROADER POLICY CONTEXT
What are the main challenges in the **communities** from which the students come? In what ways, if any, does the school deal with these?

In what ways, if any, does the **SGB** get involved in issues of teaching and learning?

Do you ever interact with people from the **district/EMDC**? If yes, how often, about what? Do you find them helpful?

Tell me about implementing the **IQMS**. Do you think it contributes to better teaching and learning in the school? Why/why not?

What **policies** do you find the most difficult to get a handle on? What policies do you think are the most important to doing what you need to do in the school?

CONCLUDING
What do you think makes this a **successful** school? OR What are the main challenges to this becoming a successful school?

If in any way, how do you think teaching and learning at this school has **changed** over the last few years?

Appendix B: Principal questionnaire

Fieldworker name ☐☐☐

Province ☐☐☐ Date: m d d

School ☐☐☐☐☐☐☐

Management of teaching and learning in South African Secondary schools

Principal questionnaire

By completing this questionnaire I agree to participate in this study. I do understand that the only way I may benefit is through the impact of this research on providing understanding of the management of curriculum and instruction in a broad range of South African secondary schools. I also agree to participation based on the confidentiality of all my responses provided below.

1. How many learners are there in the school?

_____

2. How many teachers are there in the school?

_____

3. What are the school fees per annum?

_____

4. Where is the school located? (Please tick only one box.)

☐ (1) Urban – township

☐ (2) Urban – Suburban

☐ (3) Small town

☐ (4) Rural

5. What former education department did the school belong to? (Please tick only one box.)

☐ (1) DET

☐ (2) HOA

☐ (3) HOR

☐ (4) New Education Department

☐ (5) Ciskei

☐ (6) Transkei

6. What **poverty quintile** is the school located in? (Please tick only one box.)

☐ (1) Quintile 1 (poorest)

☐ (2) Quintile 2

☐ (3) Quintile 3

☐ (4) Quintile 4

☐ (5) Quintile 5 (wealthiest)

7. What is your sex? (Please tick only one box.)

- (1) Male
- (2) Female

8. How many years did you teach before you became a school principal?

- (1) Less than 5 years
- (2) 5 to 10 years
- (3) More than 10 years

9. What is the highest level of **academic education** you have attained? (Please tick only *one* box.)

- (1) Part or whole of primary education
- (2) Part of secondary education
- (3) Senior certificate (standard 10 or matric)
- (4) Post-secondary diploma or certificate
- (5) A first degree (e.g. BA, BSc, Bcomm)
- (6) Post-graduate diploma or certificate
- (7) Post-graduate degree – Honours
- (8) Post-graduate degree – Masters or PhD

10. If you received a degree, what subject/s did you major in?

_____ _____

11. How many years have you been a school principal? (Please tick only one box.)

- (1) 0–1 year
- (2) 2–5 years
- (3) 6–10 years
- (4) 11 years or more

12. How many years have you been a school principal at this school? (Please tick only one box.)

- (1) 0–1 year
- (2) 2–5 years
- (3) 6–10 years
- (4) 11 years or more

13. As a principal in this school, what would you say is the task on which you spend the most time? (Please tick only one box.)

☐ (1)	Disciplining learners	☐ (6)	Dealing with issues in the community
☐ (2)	Liaising with parents	☐ (7)	Administration and departmental reporting
☐ (3)	Financial management (including fundraising)	☐ (8)	Supervising teachers
☐ (4)	Overseeing teaching and curriculum	☐ (9)	Liaising and meeting with the district / Department
☐ (5)	Teaching	☐ (10)	Other. Specify: _____

14. As a principal in this school, what would you say is the task on which you spend the least time? (Please tick only one box.)

☐ (1)	Disciplining learners	☐ (6)	Dealing with issues in the community
☐ (2)	Liaising with parents / SGB	☐ (7)	Administration and departmental reporting
☐ (3)	Financial management (including fundraising)	☐ (8)	Supervising teachers
☐ (4)	Overseeing teaching and curriculum	☐ (9)	Liaising and meeting with the district / Department
☐ (5)	Teaching	☐ (10)	Other. Specify: _____

15. Is teacher absenteeism a significant problem at your school? (Please tick only *one* box.)

☐ (1)	Yes, for a few of the teachers	☐ (3)	Yes, for most of the teachers
☐ (2)	Yes, for about half the teachers	☐ (4)	It's not a problem

16. Do you have financial performance incentives in the school for teachers who do extra work, or who perform well?

☐ (1) Yes ☐ (2) No

17. If yes, how many teachers receive these incentives at your school?

_____

18. In general, do teachers in your school complete the required curriculum? (Please tick only *one* box.)

- (1) All teachers do
- (2) About three quarters of the teachers do
- (3) About half the teachers do
- (4) About a quarter or less teachers do

19. Do you do lesson observations of your teachers? (Please tick only *one* box.)

- (1) Often
- (2) Sometimes
- (3) Rarely
- (4) Never

20. Do you teach? (Please tick only one box.)

- (1) Yes
- (2) No

21. If yes, what subject, and at what level?

Subject: _____

Grade/s: _____

22. How often do subject heads meet with teachers? (Please tick only *one* box.)

- (1) Once a week
- (2) Twice a month
- (3) Twice a term
- (4) Twice a year
- (5) Once a month
- (6) Once a term
- (7) Once a year
- (8) Never

23. Who is the *main* person responsible for academic issues in the school? (Please tick only *one* box.)

- (1) The principal
- (2) One of the deputy principals
- (3) One of the heads of department
- (4) One of the subject heads
- (5) Individual teachers

24. How often are classes disrupted in the school? (Please tick only one box.)

- (1) Often
- (2) Sometimes
- (3) Rarely
- (4) Never

25. What are the main reasons for the disruption of classes? (Please tick only *one* box.)

- (1) Teacher absenteeism, or non-presence in classroom
- (2) Extra-mural activities
- (3) Staff meetings
- (4) Student absenteeism or late-coming
- (5) Community violence
- (6) Classes are never disrupted
- (7) Other. Specify: _____

26. In general, how would you describe the curriculum offered at the school? (Please tick only one box.)

- (1) It is far below the standard of the official curriculum
- (2) It is a slightly watered down version of the official curriculum
- (3) It is to the standard of the official curriculum
- (4) It is above the standard specified in the official curriculum
- (5) I don't know

27. How many educators do you have in the school in governing body posts? (Write '0' if you have none)

_____ educators

28a. Over the past three years this school's matric pass rate has…(Please tick only one box.)

- (1) Declined
- (2) Improved
- (3) Remained the same

28b. What is the *main* reason for this decline / improvement / consistency in the matric pass rate?

_____

_____

29. Please rank the three **most** significant factors **inside** the school affecting teaching and learning (put a '1' for most significant, '2' for second most significant, and '3' for third most significant).

- [ ] (1) Teachers are absent or out of class often
- [ ] (2) The curriculum is watered down or simplified
- [ ] (3) The whole curriculum is not covered
- [ ] (4) There are insufficient textbooks and other learning materials
- [ ] (5) The classes are too large
- [ ] (6) There are too many disruptions to teaching time
- [ ] (7) Too much time is spent on disciplining students
- [ ] (8) Teachers are not fully qualified to teach their subjects
- [ ] (9) None of these
- [ ] (10) Other. Specify: _____

30. Please rank the **three most** significant factors **outside** the school affecting teaching and learning (put a '1' for most significant, '2' for second most significant, and '3' for third most significant).

- [ ] (1) Student late-coming
- [ ] (2) Drug and alcohol abuse
- [ ] (3) Parents not invested in students' schooling
- [ ] (4) Student absenteeism and drop out
- [ ] (5) Gang activity
- [ ] (6) Backlog in students' learning from primary school
- [ ] (7) None of these
- [ ] (8) Other. Specify: _____

31. Which statement best describes the SGB at the school?

- [ ] (1) They are willing to help, but lack skills and resources
- [ ] (2) They are not willing to help, although they have skills and resources
- [ ] (3) They are not willing to help and have no skills and resources
- [ ] (4) They are willing to help and have the skills and resources to do so.

32. Did you meet with the Department to discuss your school's matric results last year? (Please tick only one box.)

- [ ] (1) Yes
- [ ] (2) No

33. If yes, do you think it has had an impact on how you are approaching the matric exams this year?

- [ ] (1) Yes
- [ ] (2) No

34. If your answer to 33 is yes, in what ways has the department impacted on your approach to the matric exams this year?

_____

_____

35. What is the central mission or programme for the school for this term (i.e. what is the focus of the school on this term)?

_____

_____

36. Which of the following programmes does your school run regularly for Grade 12 students at the school?

- [ ] (1) Afternoon classes
- [ ] (2) Saturday classes
- [ ] (3) Motivational courses or camps
- [ ] (4) Special tutoring for certain students
- [ ] (5) Career guidance and psychological counselling
- [ ] (6) Other, please specify: _____
- [ ] (7) Other, please specify: _____

37. What do you do about Grade 12 students who are failing (for example, in the June exams)?

_____

_____

38. How would you describe the roles and responsibilities of managers in the school?

☐ (1) They mostly have a wide range of responsibilities, and generic management roles

☐ (2) They mostly have specific responsibilities with specific management roles

39. Additional revenue or funds in the school is generally allocated towards:? (Please tick only *one* box.)

☐ (1) School infrastructure (improving buildings or grounds)

☐ (2) School maintenance

☐ (3) Outstanding payments for services

☐ (4) Additional LTSM

☐ (5) School events / celebrations

☐ (6) Professional development activities

☐ (7) Additional teachers or educational support

☐ (8) There are never additional funds

40. If there are any other, non-financial incentives in the school for teachers who perform well, what are they?

_____

_____

41. Who is most responsible for overseeing that teachers cover the whole curriculum? (Please tick only one box.)

☐ (1) The principal

☐ (2) The HODs or deputy principals

☐ (3) Grade heads

☐ (4) Subject heads

☐ (5) The teachers themselves

42. How many teachers in the school are fully qualified to teach the subjects that they teach? (Please tick only one box.)

- ☐ (1) All the teachers
- ☐ (2) About three quarters of the teachers
- ☐ (3) About half the teachers
- ☐ (4) About a quarter of the teachers
- ☐ (5) None

43. For this school, who has arranged most of the professional development activities for teachers in the last two years? (Please tick only one box.)

- ☐ (1) The principal
- ☐ (2) The HODs or deputy principals
- ☐ (3) Grade heads
- ☐ (4) The department or district
- ☐ (5) Teachers have attended no professional development activities

44. Indicate in the boxes below whether you strongly agree, agree, disagree or strongly disagree with the given statement (Please tick only one box per statement.)

		Strongly agree	Agree	Disagree	Strongly disagree
44.1	The school has a well-worked-out plan for how to improve student results	☐ (1)	☐ (2)	☐ (3)	☐ (4)
44.2	There is agreement among the staff and management on how to improve student results	☐ (1)	☐ (2)	☐ (3)	☐ (4)
44.3	The school has high expectations for all students in the school	☐ (1)	☐ (2)	☐ (3)	☐ (4)
44.4	There is good communication between teachers and managers at the school	☐ (1)	☐ (2)	☐ (3)	☐ (4)
44.5	Teachers and management alike are given the opportunity to make contributions towards decisions about curriculum and instruction in the school	☐ (1)	☐ (2)	☐ (3)	☐ (4)
44.6	Contributions made by teachers towards issues of curriculum and instruction in the school are always valued	☐ (1)	☐ (2)	☐ (3)	☐ (4)

		Strongly agree	Agree	Disagree	Strongly disagree
44.7	I feel valued and supported in the school by my staff	(1)	(2)	(3)	(4)
44.8	Parents of students in this school place a high value on education	(1)	(2)	(3)	(4)
44.9	Most of the parents of students in this school try their best to support students in coming to school, doing homework and learning for tests	(1)	(2)	(3)	(4)
44.10	There is generally a culture of trust and collaboration between teachers and management in this school	(1)	(2)	(3)	(4)
44.11	In this school teachers work together and help each other with teaching and learning issues	(1)	(2)	(3)	(4)
44.12	There is sufficient learning and teaching materials, especially textbooks, for the subject/s that I teach	(1)	(2)	(3)	(4)
44.13	There are effective systems in the school for the retrieval and maintenance of textbooks	(1)	(2)	(3)	(4)
44.14	Our school day is structured for maximum student learning	(1)	(2)	(3)	(4)
44.15	The purposes and procedures for the IQMS are well understood throughout the school	(1)	(2)	(3)	(4)
44.16	The IQMS has contributed to better teaching and learning in our school	(1)	(2)	(3)	(4)

Appendix C: Research information sheet

MANAGING CURRICULUM AND INSTRUCTION IN SOUTH AFRICAN SECONDARY SCHOOLS

Research Information Sheet

Dear Sir or Madam:

Description: The HSRC is undertaking a research project in order to investigate the management of curriculum and instruction in South African secondary schools. We are interested in questions around curriculum coverage, relations with communities, teachers and the supervision of teaching, as well as the monitoring and improvement of matriculation results. We have selected schools that have both improved in their matric results over the past three years, and those whose results have declined. This is a comparative study, which looks at schools in different contexts (especially urban / rural), the different challenges that confront leaders, and how different challenges and organizational dynamics translate into different student outcomes.

In order for the research to be effective we are requesting that you assist us by agreeing to complete a short questionnaire. It will take you approximately 20 minutes to complete.

The research will be conducted in the third and fourth weeks of August 2007.

Risks: There are no foreseeable risks to you in participating in the study. Should you however experience any anxieties, you can approach either the supervisor of this project or the HSRC for support. Participation in the study will not disadvantage you in any way.

Privacy: Your individual privacy and that of your school will be preserved in all published or written data from this study. Pseudonyms will be used in any data that is published. In addition, information gathered from different participants in a school will not under any circumstances be shared amongst those participants. For example, responses from teachers will not be made available to principals, and vice versa.

All data from the study will be stored securely at the HSRC for a period of at least five years in the office of the principal investigator who has sole access to the locked cupboard in which the data will be stored.

Time involvement: The length of your participation in this study will be approximately twenty minutes in total.

Payments: You will receive no payment for participation in this study.

Participant rights: If you have read this form and have decided to participate in this study, please understand that your participation is voluntary and you have the right to withdraw your consent or discontinue participation at anytime without penalty. You have the right to refuse to answer particular questions and your right will be upheld at all times. If you have any questions about your rights as a participant or are dissatisfied at anytime with any aspect of the project, you may contact, anonymously, if you wish – the Ethics Committee at the HSRC, private bag X41 Pretoria, 001, Tel: (012) 302 2009.

If you have any questions about this study, you may contact Dr Ursula Hoadley at the HSRC on Tel: (021) 466 8006 or by Fax (021) 466 7989 or by email: uhoadley@hsrc.ac.za.

Yours sincerely

Dr Ursula Hoadley
Principal Investigator

Appendix D: Additional tables

Table A.1: SAGOT and whether the principal had taught for more than 10 years before becoming a principal

Variables	Unstandardised coefficients		Standardised coefficients	*t*-score	Significance
	B-weights	SE of B-weights	Beta weights		
(Constant)	44.646	5.829		7.659	.000
Matric pass rate 2004	–.657	.067	–.870	–9.809	.000
Log of school fees pa	2.081	1.205	.124	1.728	.086
HoA	13.835	5.642	.282	2.452	.016
HoR	2.451	4.861	.051	.504	.615
New education department	4.098	5.713	.057	.717	.474
Ciskei	–13.632	5.487	–.201	–2.484	.014
Transkei	–.042	4.927	–.001	–.009	.993
Taught for >10 years before becoming principal	–2.804	3.182	–.057	–.881	.380

Table A.2: SAGOT and whether the principal teaches Grade 10 or higher

Variables	Unstandardised coefficients		Standardised coefficients	*t*-score	Significance
	B-weights	SE of B-weights	Beta weights		
(Constant)	44.875	5.733		7.828	.000
Matric pass rate 2004	–.654	.068	–.862	–9.640	.000
Log of school fees pa	2.284	1.236	.137	1.848	.067
HoA	13.971	5.724	.292	2.441	.016
HoR	2.682	4.914	.056	.546	.586
New education department	4.501	5.742	.063	.784	.435
Ciskei	–14.076	5.461	–.211	–2.578	.011
Transkei	.090	5.062	.002	.018	.986
Principal teaches Grade 10 and above	–3.972	3.268	–.079	–1.215	.226

Table A.3: SAGOT and whether the principal teaches subjects in which qualified

Variables	Unstandardised coefficients		Standardised coefficients		
	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	41.873	5.609		7.465	.000
Matric pass rate 2004	–.641	.068	–.862	–9.422	.000
Log of school fees pa	1.983	1.216	.121	1.630	.106
HoA	15.277	5.768	.319	2.648	.009
HoR	2.956	4.929	.063	.600	.550
New education department	7.217	6.067	.096	1.190	.236
Ciskei	–12.096	5.525	–.185	–2.189	.030
Transkei	1.503	5.075	.026	.296	.768
Principal teaches subjects in which qualified	–2.889	2.797	–.068	–1.033	.304

Table A.4: SAGOT and whether the principal spends most of the time on issues of curriculum and instruction

Variables	Unstandardised coefficients		Standardised coefficients		
	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	42.001	5.429		7.736	.000
Matric pass rate 2004	–.655	.069	–.870	–9.524	.000
Log of school fees pa	2.127	1.223	.128	1.739	.084
HoA	14.132	5.735	.294	2.464	.015
HoR	2.019	4.897	.042	.412	.681
New education department	4.247	5.781	.059	.735	.464
Ciskei	–14.520	5.710	–.210	–2.543	.012
Transkei	–.564	5.022	–.010	–.112	.911
Principal spends most of the time on issues of curriculum and instruction	1.563	3.675	.028	.425	.671

Table A.5: SAGOT and improvement strategies

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	48.447	18.206		2.661	.009
Matric pass rate 2004	–.649	.068	–.863	–9.575	.000
Log of school fees pa	2.165	1.225	.130	1.768	.079
HoA	14.792	5.704	.305	2.593	.011
HoR	2.426	4.856	.051	.500	.618
New education department	4.347	5.881	.060	.739	.461
Ciskei	–13.533	5.486	–.199	–2.467	.015
Transkei	.522	4.964	.009	.105	.916
One improvement strategy	–9.200	16.595	–.198	–.554	.580
Two improvement strategies	–6.263	16.666	–.136	–.376	.708

Table A.6: SAGOT and individualising strategies

	Unstandardised coefficients		Standardised coefficients		
Variables	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	41.619	5.241		7.941	.000
Matric pass rate 2004	–.644	.066	–.855	–9.700	.000
Log of school fees pa	1.803	1.198	.107	1.505	.135
HoA	13.833	5.607	.286	2.467	.015
HoR	1.677	4.829	.035	.347	.729
New education department	3.690	5.649	.051	.653	.515
Ciskei	–13.471	5.407	–.199	–2.492	.014
Transkei	.647	4.959	.011	.130	.896
Individualising strategies	3.179	2.958	.069	1.075	.284

Table A.7: SAGOT and whether staff participate in decision-making

Variables	Unstandardised coefficients		Standardised coefficients	*t*-score	Significance
	B-weights	SE of B-weights	Beta weights		
(Constant)	45.857	16.905		2.713	.008
Matric pass rate 2004	–.651	.067	–.866	–9.772	.000
Log of school fees pa	2.055	1.207	.124	1.704	.091
HoA	13.885	5.629	.286	2.467	.015
HoR	2.032	4.846	.043	.419	.676
New education department	3.624	5.875	.050	.617	.538
Ciskei	–14.322	5.515	–.211	–2.597	.010
Transkei	–.108	4.921	–.002	–.022	.982
Staff participate in decision-making	–.236	1.065	–.015	–.222	.825

Table A.8: SAGOT and whether subject heads and teachers meet often enough

Variables	Unstandardised coefficients		Standardised coefficients	*t*-score	Significance
	B-weights	SE of B-weights	Beta weights		
(Constant)	43.462	5.803		7.489	.000
Matric pass rate 2004	–.661	.071	–.883	–9.333	.000
Log of school fees pa	2.257	1.223	.137	1.845	.067
HoA	14.084	5.761	.294	2.445	.016
HoR	1.949	4.904	.042	.397	.692
New education department	2.602	5.991	.036	.434	.665
Ciskei	–12.775	5.645	–.187	–2.263	.025
Transkei	–.159	5.034	–.003	–.032	.975
Subject heads and teachers meet often enough	–1.158	2.888	–.027	–.401	.689

Table A.9: SAGOT and whether there are non-financial performance incentives

Variables	Unstandardised coefficients		Standardised coefficients		
	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	41.782	5.171		8.080	.000
Matric pass rate 2004	–.658	.067	–.875	–9.886	.000
Log of school fees pa	2.042	1.197	.123	1.706	.090
HoA	14.633	5.643	.302	2.593	.011
HoR	2.968	4.878	.062	.608	.544
New education department	3.626	5.684	.050	.638	.525
Ciskei	–13.555	5.451	–.200	–2.487	.014
Transkei	–.591	4.917	–.010	–.120	.904
Non-financial performance incentives for teachers	4.264	3.769	.074	1.131	.260

Table A.10: SAGOT and whether there are financial performance incentives

Variables	Unstandardised coefficients		Standardised coefficients		
	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	42.326	5.201		8.138	.000
Matric pass rate 2004	–.652	.067	–.867	–9.718	.000
Log of school fees pa	2.063	1.222	.124	1.688	.094
HoA	13.806	5.704	.285	2.420	.017
HoR	2.121	4.855	.045	.437	.663
New education department	3.922	5.708	.054	.687	.493
Ciskei	–14.137	5.452	–.208	–2.593	.011
Transkei	–.103	4.923	–.002	–.021	.983
Financial performance incentives for teachers	.309	4.111	.005	.075	.940

Table A.11: SAGOT and student: teacher ratio

Variables	Unstandardised coefficients		Standardised coefficients		
	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	42.492	8.147		5.216	.000
Matric pass rate 2004	–.643	.068	–.858	–9.515	.000
Log of school fees pa	2.078	1.207	.125	1.721	.088
HoA	13.258	6.130	.274	2.163	.032
HoR	1.797	4.883	.038	.368	.713

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Variables	Unstandardised coefficients		Standardised coefficients		
	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
New education department	3.867	5.725	.054	.676	.501
Ciskei	–14.216	5.623	–.210	–2.528	.013
Transkei	.625	4.996	.011	.125	.901
Student:teacher ratio	–.020	.194	–.008	–.104	.918

Table A.12: SAGOT and teacher qualifications

Variables	Unstandardised coefficients		Standardised coefficients		
	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	41.165	6.004		6.856	.000
Matric pass rate 2004	–.643	.066	–.859	–9.687	.000
Log of school fees pa	2.132	1.196	.129	1.783	.077
HoA	13.931	5.632	.291	2.474	.015
HoR	2.331	4.906	.050	.475	.635
New education department	4.311	5.865	.060	.735	.464
Ciskei	–15.820	5.595	–.229	–2.828	.005
Transkei	.452	5.015	.008	.090	.928
Teachers fully qualified to teach their subjects	.039	2.374	.001	.016	.987

Table A.13: SAGOT and policy knowledge (in terms of IQMS)

Variables	Unstandardised coefficients		Standardised coefficients		
	B-weights	SE of B-weights	Beta weights	*t*-score	Significance
(Constant)	48.074	10.166		4.729	.000
Matric pass rate 2004	–.648	.067	–.861	–9.697	.000
Log of school fees pa	2.053	1.201	.123	1.710	.090
HoA	14.325	5.662	.296	2.530	.013
HoR	2.057	4.831	.043	.426	.671
New education department	3.991	5.696	.055	.701	.485
Ciskei	–15.168	5.662	–.223	–2.679	.008
Transkei	–.331	4.926	–.006	–.067	.947
Policy knowledge in terms of IQMS	–.678	1.025	–.047	–.661	.510

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