Repetition and Difference:
A Rhythmanalysis of Pedagogic Practice

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Declaration

I declare that this doctoral thesis is my own unaided work. It has been submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in the School of Education at the University of the Witwatersrand.

It has not been submitted for any degree at any other university.

.............................................
Abstract

Repetition and difference: A Rhythmanalysis of pedagogic practice

This thesis sets out to describe particular ways in which contextual, repetitive and habituated practice routines articulate with the regulation of pedagogic practice by pedagogic discourse and with the circulation of practice conventions through interaction within a practice community. Theories that foreground each of the three aspects of pedagogic practice – discourse, interaction and space/time and technology use - are interrogated in relation to each other and in relation to data in order to develop a conceptual and analytic frame for the study. Data for the study is drawn from a multiple case study, based primarily on lesson observations in two secondary schools as well as observations of interactions and space/time practices in the broader school contexts. The key theoretical resources are Bernstein, Lefebvre and situated activity theorists such as Lave and Wenger.

The study proceeds by developing a typology of three modes of pedagogic practice as a basis for analysis of the data and for a description of pedagogic practice. It is argued that each mode is constituted in the relation between a repetitive, habitual, contextual substratum and two supervening referents for the insertion of difference into this substratum. This typology reflects a conceptualization of pedagogy as a hybrid practice with three aspects: pedagogic discourse, practice conventions circulated in a practice community and repetitive practice routines. Each aspect is potentially a dominant organising referent in a particular pedagogic practice event.

The thesis aims to produce a conceptual description that is available for use in research elsewhere rather than an empirical description that is generalizable to pedagogic practice at other sites.
Acknowledgements

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I am particularly grateful to Xolisa Guzula and Ursula Hoadley, who participated in data collection for the study, and to the teachers and learners who accepted us into their midst at the two schools where the study was conducted.

When this study was nearing completion Stuart Elden gave me access to a pre-publication copy of Lefebvre’s *Rhythmanalysis*, which he had translated with Gerald Moore. This act of spontaneous collegial generosity amazed me and contributed substantially to the study.

I would not have been able to complete this study without the support and patience of my family, Kai and Asha Barron, and – most of all – Peter, to whom I dedicate the thesis.
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Chapter One: Introduction

The aim of this study is to develop a conceptualization of pedagogic practice that explains the ways in which spatial aspects of pedagogic practice - specifically space/time and technology rhythms - relate to discursive and interactional aspects. This is done by way of critical readings of the literature that are brought into conversation with an analysis of data texts representing particular pedagogic practices in particular school contexts.

Rationale: The emergence of a problematic

This thesis was born out of two overlapping interests. The first is an interest in the relationship between institutional and classroom context and pedagogic practice. More specifically, I am interested in the ways in which spatial practices are implicated in pedagogic context and practice. The second is a desire to understand the differences between various approaches to teaching, i.e. what it is that shapes the practices of a particular teacher or community of teachers in a particular institutional context and differentiates these practices from practices in other contexts. Both these interests are rooted in an underlying concern with the quality of pedagogic practices and the equity consequences of variations in practice. Ultimately, any attempt to change, influence or improve pedagogic practice must be based on insight into the factors that give rise to or constitute particular types of practice in the first place.

My concern with the differences between the ways in which people in various contexts teach arises from my professional and intellectual trajectory, which is embedded in the broader social, historical and spatial conditions that frame practices in South African schools. Like many other South African teachers, students and education researchers, I have experienced the differences between schools in rural and urban areas, on farms or in shack settlements, in townships and suburbs, on traditional authority controlled land or in municipal areas in the former Bantustans. Each of these categories of schools was classified both socially and spatially under apartheid, through explicit
administrative practices. Apartheid, and apartheid education, provides a salient example of the systematic recruitment of spatial practices for social and political ends. Post apartheid education in South Africa provides an equally telling case of the difficulties encountered when trying to undo the historical knot of spatial, social and institutional organisation and the associated distribution of resources, including discursive resources. Simkins found that

... for Africans superior attainment was exhibited, in decreasing order, by people living in formal urban, informal urban, tribal rural, and commercial farm settings. Simkins concluded that for Africans (the situation for coloureds is very similar) 30% of the variance is jointly explained in terms of settlement type, gender and age; for whites (and presumably Asians) the corresponding figure is only 6.7%. (Simkins, cited in Taylor, Muller and Vinjevold 2003 p. 53)

Simkins based this work on the assumption that the type of settlement inhabited by people is a function of their mean income levels, occupational structures and institutional arrangements. In effect, this means that learners from poorer homes bring different experiences and resources (including discursive resources) to the classroom and also have different experiences and acquire different resources in classrooms embedded in particular ‘institutional arrangements’. Thus poor learners are co-located with each other and with particular institutional and pedagogic practices, and separated from less poor learners who experience other types of ‘institutional arrangements’ and pedagogic practices. The implication is that class is spatially located and differentiated, or distributed.

This approach indicates one aspect of the spatialization of pedagogic practices, i.e. location or distribution. This study is less concerned with how pedagogic practices are spatially distributed (although it is premised on the notion that they are) than it is with the ways in which pedagogic practices are constituted within a particular institution, and specifically with the spatial component of this. To borrow Bernstein’s (1996) terminology, I am less concerned with spatial classifications than with spatial framing, even though the latter is premised on the former. In other words, I am interested in the ‘institutional arrangements’ and pedagogic practices that express and
reproduce the social, material and discursive relations that pertain in particular places.

My earlier attempts at explaining socio-spatial differences between schools focused primarily on the distribution of material resources, specifically facilities (Jacklin 1991, 1995b, 1997, Graaff & Jacklin, 1995) and governance and funding practices (Jacklin 1992, 1993a, 1993b, 1994, 1995b, Jacklin and Graaff 1995). These studies were nurtured by the work of a small community of scholars who shared an interest in explaining the spatial configurations of schooling in South Africa and the specificities of educational practices in particular contexts (Christie & Gaganakis 1989; Christie & Gordon 1992; Graaff 1989; Graaff 1995; Graaff & Gordon 1992; Nasson 1988). They were also informed by a reading of the work of scholars elsewhere who had an interest in school locality and spatial differences in schooling (Grace 1984).

But none of this work addressed the relation between context and variations in pedagogic practice. Yet it stands to reason that variations in teaching and learning practices in classrooms must be taken into account if we are to explain different levels of achievement in schools. This study is premised on the assertion that the significance of other differences – input, management practices and even levels of social capital that teachers and learners bring to classrooms – arise out of the ways in which these differences articulate with or enter into classroom teaching and learning practices in particular contexts. In this view, the relationships between inputs and outputs, learner experiences and teacher orientations, or school level activities and classroom level activities is best understood in terms of the ways they shape, and are shaped by, pedagogic practices. Towards this end, it is essential to develop a theory of teacher practices that not only explains how these elements articulate but also generates descriptions of different patterns of articulation, or different types of practices.

Chapters two, three and four will review relevant theoretical strands within the international education literature pertaining to pedagogic practice. As this study will not draw on a South African literature, with the exception of Ensor’s
work, the section below provides a brief overview of the ways in which pedagogic issues are positioned in education research in South Africa.

**Pedagogy in South Africa: Research**

Research tells us very little about actual pedagogic practices in South African classrooms. There are a number of reasons for this. Prior to 1994, state control, political conflict and issues of political legitimacy limited the kinds of research that could take place in schools. Research tended to rely heavily on macro-level statistics within quantitative research designs with little sustained study of the context and processes of teaching and learning (McDonald 1993; Flanagan and Cole 1995). Anti-apartheid critiques of education tended to focus on indicators of inequality and external efficiencies in the education system (Pillay 1991; Fuller et al. 1995).

In the transition period, from the early 1990’s, education research energies across the political and academic spectrum were strongly directed towards policy development, analysis and review. After 1994 the dominant paradigm soon became indicator led school effectiveness studies, although some researchers turned to qualitative studies of material conditions in schools (Heneveld 1994, Archer 1996, Naidoo 1997). However, this work still tended to focus on the school, rather than the classroom and pedagogy, as research site and object (See also Christie and Potterton 1997; Davidoff and De Jong 1997).

The research agenda is strongly influenced, if only through funding policies, by reform priorities. In South Africa education transformation policies have focused on the development of legislative and regulatory frameworks to put in place financial, management, governance, qualification and human resource systems and to introduce a new curriculum, rather than on pedagogic practices in classrooms (Kallaway 1997). Generally equity issues have taken precedence over quality issues (Motala 2001). All these factors have contributed to an emphasis on large scale systemic issues in research, particularly access and inputs. In 1999, for example, the official in the National
Education Department responsible for approving research projects actively discouraged funders from supporting research projects aimed at researching classroom pedagogic practices, on the grounds that the proposed studies were small scale and qualitative in approach.

In recent years, attention has turned to learner attainments in schools. Many large-scale studies rely heavily on grade twelve results as an indicator of school performance. Often such studies look for correlations between inputs such as teacher qualifications, facilities and equipment and teacher pupil ratios, and grade twelve results (Case and Deaton 1999; Bot et al 2000 and Crouch & Mabogoane 2001) in order to identify explanatory factors. Clearly the high grade twelve failure rates of the early nineties provided cause for concern, although national grade twelve results have been improving in more recent years.

But these studies tend to read causes off associations between inputs and outputs and to assume that outputs at the grade twelve level are indicative of the quality of teaching and learning throughout the school. There is little attention to the actual processes that translate inputs into outputs. Furthermore, there is no evidence that results at the grade twelve level are necessarily always indicative of results at other levels within the same school. Indeed, a comparison between the two schools that served as sites for this study revealed a substantial difference between results at the grade twelve level, and a remarkable similarity in results at the grade nine level. In a context where there is increasing pressure on schools (and indeed on the education system) to ‘perform well’ at the grade twelve level, there is always a possibility that results at this level have been boosted by strategies which do not necessarily enhance learning across the school as a whole.

The net result is that there is generally a lack of research that gives insight into what is happening inside South African school classrooms. In the absence of a diagnosis of pedagogic failure based on knowledge of how teachers teach and why they teach the way they do, there is a danger that reform responses will respond to symptoms rather than causes.
There has, however, been a growing trickle of studies focusing on the practices of teachers (Ensor 1999; Macdonald 1990; Adler & Reed 2002; Setati et al 2002; Brodie et al, 2002). Few of these focus on the school classroom context. Mcdonald (1990) and Langham (1993) explain teacher practices as a response, based on the teachers’ own conceptual knowledge, to conceptually and linguistically underprepared learners while Ensor examines the relationship between pre-service education and the pedagogic practice of teachers. More recently, Ensor (2002) and Hoadley (2002) point to (but do not focus on) ways in which classroom practices are embedded in broader institutional, or ‘management’ practices. Both these writers identify issues of time use and pacing as institution wide practices that impact on pedagogy.

Taylor and Vinjevold (1999) summarize insights derived from thirty-five research studies that were commissioned by the President’s Education Initiative (PEI) in 1998. These studies describe and attempt to explain classroom practices in South African schools. Taylor and Vinjevold identify eight ‘main issues in teaching and learning’ from these studies: institutional conditions, the attitudes of teachers, teacher knowledge, classroom practices, student learning, the use of textbooks and other materials in the classroom, the assessment of pupil achievement and the role of language in learning. According to Taylor and Vinjevold, a number of studies in the PEI commissioned work ‘hypothesized a link between teachers’ knowledge, classroom practices and pupil achievement’ (Taylor and Vinjevold 1999 p. 155; See for example Reeves and Long and Webb et al reported in Taylor and Vinjevold 1999). Typically, these studies looked for correlations between measures of teacher knowledge and learner performance.

A consistent gap in these studies, and in our research based empirical knowledge of pedagogy in South African schools generally, is an explanation of how the pieces (teacher knowledge, teacher attitude, classroom activities, institutional practices, use of materials etc.) fit together in teacher practice. This is unfortunate, as the greatest potential value of small-scale studies such
as these lies primarily in their explanatory or theoretical rather than in their empirical generalizability. They respond more strongly (though not exclusively) to ‘how’ and ‘why’ questions, than to ‘what’ and ‘how often’ questions. In so far as they do so, they constitute the beginnings of a conversation that explains the forms of, and variations between, pedagogic practices in South African schools. This study aims to contribute to this conversation.

Taylor, Muller & Vinjevold (2003) have approached this problematic by focusing on the ‘match’ between learner orientations to meaning and teacher practices. This is an important contribution, in so far as it aims to point the way to a desired pedagogy. But these writers do not address the issue of why teachers teach the way they do – or why they do not teach in the ways regarded as most desirable. Any attempt to shift teacher practices so that they ‘match’ the needs of particular groups of learners better must be premised on a response to this question, rather than on a normative imperative.

One study that does respond to this challenge to understand what is actually happening inside schools is that of Christie (1998). On the basis of research into a number of poorly functioning schools in Gauteng in 1995, Christie argues that

... in the failing township schools in South Africa, organisational environments do not support the substantive work of systematized learning. One of the meanings of the breakdown of the culture of learning and teaching is a breakdown of rhythmical, disciplined learning and teaching formally structured in time and space (Christie 1998 p. 289).

Much of Christie’s description of daily life in these schools could just as well have referred to daily life in the schools where data was collected for this study in 1999 and 2000. Her description is quoted at some length here, partly because the similarity suggests that the issues addressed in this study are not uncommon in South African township schools.

Certainly, the schools we visited showed clear signs of organisational breakdown in both structures and processes. There were problems with management and administration, including weak and
unaccountable authority structures. For example, in one of the schools, the principal had not attended regularly for the past eighteen months and the school was run by the deputy who was reluctant to take full authority. In another school, the principal, who portrayed himself to us as a dynamic leader, was resented by his staff for his lack of accountability. In most of the schools in the CCOLT (Committee on the culture of learning and teaching) studies, information was poorly communicated, disciplinary and grievance procedures were vague or non-existent, staff meetings were not held regularly and there was evidence that meeting procedures, record keeping and general administration were poor. Furthermore, in the CCOLT schools, time boundaries were not maintained. Schools were unable to enforce a full working day or week for students and staff, and students, staff and principals themselves often came late and left early. A common practice was for numbers of students to leave the premises at lunch break and not return for the rest of the day. Whole school days were cancelled for sporting activities and schools readily closed early for sporting events. Unnecessary timetable confusions accentuated the sense of unpredictability about the school day. Difficulties in scheduling and keeping appointments with us as researchers provided further evidence of the haphazard time-tabling and cancellation of classes in these schools. In short, boundaries of time no longer acted as stable predictors for school activities or reliable predicates for discipline. Space boundaries were also transgressed. Problems from local communities spilt over into schools; violence of all sorts threatened the safety of students, teachers and principals; alcohol and drugs were peddled through fences and the authority of the principal and staff did not prevail over the material or symbolic space of the school. In short, organisational rituals, discipline and boundaries were simply not working and their dysfunction was part of the culture – the informal logic – of everyday life in these schools (Christie 1998 p. 289-209).

Christie suggests that an analysis of the breakdown of teaching and learning in these schools must include an analysis of ‘the informal logic of everyday life’. She places space/time routines and symbolic and real space/time boundaries at the centre of this analysis (Christie & Potterton 1997, Christie 1999). This study aims to build on this work of conceptualising the ways in which contextually based daily space/time and technology use routines in the classroom and school are implicated in pedagogic practice.

Research question

The thesis responds to the following question:

How are the space/time and technology use aspects of pedagogic practice related to its discursive and interaction aspects? More specifically, how do
contextual, repetitive and habituated corporeal and technical practice routines articulate with the regulation of pedagogic practice by pedagogic discourse and with practice conventions that are circulated through interaction within a practice community?

**Structure of the thesis**

In order to draw a conceptual map of pedagogic practice as extensive as is suggested here it is necessary first to provide an adequate theory of each of what, I will argue, are the three components of pedagogic practice: discourse, interaction and space/time and technology related practices. To this end, I interrogate the two dominant positions in pedagogic theory: accounts premised on the understanding that pedagogic practice in schools is (always) discursively regulated and accounts premised on the understanding that pedagogic practice is (always) shaped by the circulation of practices through interaction within a practice community. The first position is represented by the work of Bernstein and the second by the situated activity theorists such as Lave and Wenger.

The position that I develop in this study is that pedagogic practice is sometimes discursively regulated and sometimes 'convention led' (i.e. shaped by the development of a repertoire of practices derived segmentally from a practice community reservoir). From this point of view, my engagement with each set of accounts enables me to (a) take on board a description of what pedagogic practice looks like when it is discourse led or convention led and (b) show how space/time and technology related practices are positioned in these two dominant accounts. In doing so, I attempt to develop a critique of these approaches in order to create a space on the conceptual map for a third mode of practice which is not regulated by the circulation of practice conventions through social interaction or by discursive principles but by repetitive individual and collective material, spatial and bodily habits and routines.
In order to examine the spatial aspect of pedagogic practice, I first interrogate the ways in which Bernstein and the situated practice theorists implicate space/time and technology use in their accounts of social and pedagogic practice. I then critique these approaches on the basis of the work of Lefebvre.

The latter move is made via a layered reading of Lefebvre’s theory of space and, more specifically, his ‘rhythmanalysis’. I argue that Lefebvre’s rhythmanalysis grows out of and is nested in his theory of space, which, in turn, grows out of and is nested in his theory of the everyday. While it is legitimate and efficient to use Lefebvre’s rhythmanalysis, for empirical research purposes, without reference to his theories of space and the everyday, the use of rhythmanalysis is enriched if informed by reverberations of the broader theories.

It may surprise the reader that this study does not focus on issues such as school architecture, when this is obviously the most salient feature of school spatiality for many. The focus of this study is on the activity of pedagogic practice, or framing, and, it will be argued, the key spatial (or space/time) components of this are rhythm and movement, presence and absence.

Spatial classifications manifest in architecture are not fore-grounded here. This goes against the common assumption (shared also by Bernstein, as will be discussed later) that space is primarily inert and classificatory, and separate from time and movement i.e. that space is the container for, and not constitutive of, activity. It is this focus on practice as activity that leads me to select Lefebvre’s rhythmanalysis as theoretical resource, and to focus on what he calls spatial practices rather than representations (or codifications) of space and representational (or imagined) spaces.

The section of the thesis relating to the view that pedagogic practice is convention led is something of a place-holder for a description of practice which is of secondary interest to this thesis, but which nevertheless needs to appear in the overall conceptual ‘map’ developed here. Ultimately, my primary
interest is in developing an understanding of the spatial aspect of discourse led practice and in introducing a description of repetition led practice. This is not to say that convention led practice is less common or theoretically less important, only that it is not where I wish to place my primary focus at this stage.

The theoretical component of this thesis leads to the development of two central arguments: Firstly, I argue that different understandings of the ways in which the discursive, interactional and material aspects of pedagogy are conjoined provide a basis for a classification of theories of pedagogy. These can be divided into (a) those premised on the idea that the discursive aspects of pedagogic practices regulate the social and material aspects, and (b) those premised on the idea that the circulation of practices within social interaction is productive of the discursive and material aspects. The work of Basil Bernstein (1971, 1973, 1975, 1982, 1990, 1993, 1996, 1999a, 1999b, 2000) and those who use his theory is salient in the first group, while situated practice theorists such as Wertsch (1985, 1991, 1998), Lave (1982, 1986), Lave and Wenger (1991), Chaiklin (1996), Chaiklin and Lave (1996) and Wenger (1998) represent the second.

Neither of these groups takes seriously the constitutive potential of the material dimension of pedagogic practice. In fact the only theorist who does so, to my knowledge, is Jan Nespor (1994). Nespor, however, focuses on the spatial aspect of learning (not teaching) without drawing the bigger map: he does not systematically explain how spatial practices relate to social and discursive practices within pedagogy. Nespor’s work will be discussed more fully in chapter four.

My second argument is that these accounts should not be seen as competing descriptions for an understanding of generic pedagogic practices, but rather that these two theoretical approaches describe particular types of pedagogic practice. In the same vein, pedagogic practice that is repetition led constitutes a third ideal type.
These two central arguments provide the basis of a conceptual framework that generates a triadic typology of pedagogic practice types against which to analyse and describe the data texts, derived from observations of thirty-three lessons as well as observations of broader institutional practices in two secondary schools. The analysis aims to relate modes of pedagogic practice at the level of the classroom to parallel modes of broader institutional practices. In doing so, the analysis draws on Lefebvre’s notion that social practice is constituted in the relation between repetition of habituated contextual routines and the insertion of discursively or socially regulated difference into such routines. A particular form of analysis – rhythmanalysis – is used to this end.

**Background: Research sites**

This study grows out of the work of the Learner Progress and Achievement Study (LPAS), which I established in 1997 within the School of Education at the University of Cape Town. Two researchers were employed within the project to work alongside myself as director. LPAS research focused on factors that enhanced or undermined learner achievement in two primary and two secondary urban working class schools in the greater Cape Town area. These included aspects of pedagogic practice, grade one admission practices and underage in the primary schools, the relation between learner histories and overage in the secondary schools, learner migrancy between geographic areas and schools, and issues relating to school choice and school management (Hoadley 1998a, 1998b, 1999, 2002; Hoadley, Guzula & Jacklin 1998a, 1998b, Jacklin 2000a, 2000b, 2001).

During 1997 and 1998, work in LPAS foregrounded the articulation between classroom practices and broader institutional practices, specifically practices related to time use. Given my personal theoretical interest in the space/time aspect of social life, the project presented an opportunity to focus project work on this topic in 1999. The other two researchers provided support in data collection and – crucially – translation. The two schools in this study, School A
and School B, had been identified, along with two primary schools, as the sites for LPAS research.

Both schools are situated within four kilometres of each other in the greater Cape Town area. Both had been administered by the now defunct Department of Education and Training (DET) prior to 1994. Both are located in a largely impoverished and still formalising area with limited urban infrastructure and high crime rates. Many of the schools formerly administered by this department are still plagued by a legacy of poor resourcing and poor academic performance, nearly a decade after the dismantling of the old apartheid education structures. At the time the study was conducted, School A was somewhat larger than School B, with an enrolment of 1400 in 1997 compared to School B’s 1100.

School A and School B were selected for the LPAS project on the basis of their grade twelve results at the end of 1996. Of the nine former DET secondary schools in the district, School A was the highest achiever and School B was the lowest. In effect this meant that the majority of grade twelve learners (78% in 1996) at School A passed while the majority of learners at School B (90% in 1996) failed (See Table One below).

In South Africa, the category of 'pass with endorsement' is often taken to be a better indicator of educational achievement than the crude pass rate. A pass 'with endorsement' signals that a learner can apply for admission to university education. For a student who takes all or most subjects at the standard grade, as would be the case for the majority of students at Schools A and B, a pass is roughly equivalent to a 33% aggregate while a pass with endorsement is roughly equivalent to a 52% aggregate. As is clear from the table below, even School A achieved a very low rate of passes in the category 'pass with endorsement'. Data collected in 1998 in a separate study shows that, even in the lower grades, only a small minority of students in either of these schools ever achieved over 60% for any given subject (Hoadley, Guzula and Jacklin 1998b).
The table below shows the grade twelve results for both schools for the years when data was collected for the LPAS study.

### Table 1: Grade twelve results at School A and School B

<table>
<thead>
<tr>
<th></th>
<th>School A</th>
<th></th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Pass rate</td>
<td>% PWE</td>
<td>% Pass rate</td>
<td>% PWE</td>
</tr>
<tr>
<td>1996</td>
<td>77,9</td>
<td>N/a</td>
<td>9,9</td>
</tr>
<tr>
<td>1997</td>
<td>86,47</td>
<td>7,7</td>
<td>27,33</td>
</tr>
<tr>
<td>1998</td>
<td>82,29</td>
<td>9,1</td>
<td>57,05</td>
</tr>
<tr>
<td>1999</td>
<td>88,54</td>
<td>9,9</td>
<td>63,82</td>
</tr>
<tr>
<td>2000</td>
<td>89,41</td>
<td>5,88</td>
<td>70,70</td>
</tr>
</tbody>
</table>

PWE: Pass with endorsement.
Source: Western Cape Education Department Records Section. Verbal Communication.

The differences in examination results between the two schools were much less marked in the lower grades than in grade twelve. The following tables summarize results in each of the two schools in 1997, when the cohort for this study was in grade eight:

### Table 2: Numbers and percentages of learners passing and failing all grades at School A, 1997

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number of Students</th>
<th>Number of passes</th>
<th>% passes</th>
<th>Number of Failures</th>
<th>% failures</th>
<th>Number condensed</th>
<th>% real failures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 8</td>
<td>364</td>
<td>213</td>
<td>59%</td>
<td>151</td>
<td>41%</td>
<td>24</td>
<td>35%</td>
</tr>
<tr>
<td>Grade 9</td>
<td>257</td>
<td>152</td>
<td>59%</td>
<td>105</td>
<td>41%</td>
<td>14</td>
<td>35%</td>
</tr>
<tr>
<td>Grade 10</td>
<td>333</td>
<td>211</td>
<td>63%</td>
<td>122</td>
<td>37%</td>
<td>9</td>
<td>34%</td>
</tr>
<tr>
<td>Grade 11</td>
<td>243</td>
<td>174</td>
<td>73%</td>
<td>66</td>
<td>28%</td>
<td>0</td>
<td>27%</td>
</tr>
<tr>
<td>Grade 12</td>
<td>207</td>
<td>179</td>
<td>86%</td>
<td>28</td>
<td>13%</td>
<td>0</td>
<td>13%</td>
</tr>
<tr>
<td>Total</td>
<td>1401</td>
<td>929</td>
<td>66%</td>
<td>472</td>
<td>34%</td>
<td>47</td>
<td>30%</td>
</tr>
</tbody>
</table>


### Table 3: Numbers and percentages of learners passing and failing all grades at School B, 1997

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number of Students</th>
<th>Number of passes</th>
<th>% passes</th>
<th>Number of Failures</th>
<th>% failures</th>
<th>Number condensed</th>
<th>% real failures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 8</td>
<td>265</td>
<td>183</td>
<td>69%</td>
<td>82</td>
<td>31%</td>
<td>1</td>
<td>31%</td>
</tr>
<tr>
<td>Grade 9</td>
<td>215</td>
<td>168</td>
<td>78%</td>
<td>47</td>
<td>22%</td>
<td>1</td>
<td>21%</td>
</tr>
<tr>
<td>Grade 10</td>
<td>262</td>
<td>150</td>
<td>57%</td>
<td>111</td>
<td>43%</td>
<td>6</td>
<td>40%</td>
</tr>
<tr>
<td>Grade 11</td>
<td>218</td>
<td>142</td>
<td>65%</td>
<td>76</td>
<td>35%</td>
<td>9</td>
<td>30%</td>
</tr>
<tr>
<td>Grade 12</td>
<td>150</td>
<td>41</td>
<td>27%</td>
<td>109</td>
<td>69%</td>
<td>0</td>
<td>73%</td>
</tr>
<tr>
<td>Total</td>
<td>1110</td>
<td>684</td>
<td>61%</td>
<td>425</td>
<td>38%</td>
<td>17</td>
<td>37%</td>
</tr>
</tbody>
</table>

LPAS research in these two schools did not focus on the higher grades, and therefore did not produce evidence for an explanation of the more dramatic difference between the two schools in grade twelve results. However, experience in the schools suggests that the most likely factors are the following:

- More effective management of the curriculum (for example manipulation of the system of higher and standard grade options within each subject) at School A.
- School A’s capacity to select academically stronger students for grade eight based on a reputation of better grade twelve results.
- Impact of higher intake of migrant students from rural areas in School B. Many migrant students from rural areas are taken into the school at the grade ten rather than the grade eight level. Even at the grade eight level, there were twice as many learners from the Eastern Cape in School B than there were in School A in 1998.
- Stronger control of time use in School A, and consequently more ‘time on task’ for both students and teachers.
- Concentration of teachers deemed to be ‘better’ at the higher grades in School A.

This study will suggest that the actual quality of pedagogic practice in the two schools at grade nine level was not dramatically different, at the time the data was collected (1999). In short, differences in grade twelve results were a consequence of different student intake, management of time on task and management of the curriculum rather than a better quality of pedagogic practice throughout the school. This issue has emerged in public debate in recent months, and Jansen (2003) has argued strongly in the public media that schools manipulate grade twelve results in response to pressure from the Ministry of Education to improve their performance.

The relatively low results profile of the two schools articulates with a student profile suggestive of a collective history of low achievement. The majority of students started school late, dropped out of and returned to the education
system, or repeated grades at some point in their careers. At School A, 55% of the learners in the entire school were overage in 1998 as compared to 76% of learners at School B, and in grade twelve for the same year, 83% of all learners in both schools were overage (Hoadley, Guzula and Jacklin 1998b). Overage was defined, here, as at least two years older than the expected age for a grade, for example fifteen or older in grade eight.

Learners at both schools came from homes where the majority of parents were either employed in unskilled work – with domestic work being the most common form of employment – or unemployed. In most cases, parents had not completed school. A 1998 survey of 75% of grade eight learners at the two schools found that 63% of parents of learners at School A and 87% of parents of learners at School B had not completed secondary school (Hoadley 1998b).

In summary, School A was generally considered to be a higher performing school than School B, on the basis of grade twelve results. However, on closer examination, learner performance at School A was also relatively weak with regard to more meaningful sub-categories of pass rates. At lower grade levels, evidence suggests that there are more similarities than differences between the schools as regards learner performance. Finally, learners in both schools came from relatively poor homes.

**Chapter outline**

This chapter has introduced the problematic of, and questions for, the thesis. It has contextualized these within my own intellectual and professional concerns and within the field of pedagogy research in South Africa. Finally, it has provided an overview of the structure of the thesis.

Chapter two reviews Bernstein’s theory of pedagogic practice, with specific reference to his premise that pedagogic practice - specifically its interactional and locational components - is a transformation of pedagogic discourse. This premise is critiqued from within Bernstein’s own work and that of Ensor, who
uses his work. The chapter suggests that actual pedagogic practices of actual teachers may be located on a continuum from practice that is strongly regulated by the generative principles of pedagogic discourse to practice that is more responsive to contextual influences. This leads to the argument that Bernstein provides a definitive description of pedagogic practice of a particular type, i.e. pedagogic practice that is regulated by the generative principles of pedagogic discourse. Finally, the chapter interrogates Bernstein’s notions of space and location, and argues that these notions are underdeveloped and inconsistent in Bernstein’s work.

Chapter three reviews a literature that proceeds from the premise that social practices generally, including pedagogic practices, are primarily constituted in response to the circulation of practice strategies through interactions within practice communities. Again, the argument is made that this literature describes pedagogic (and other social) practices of a particular type, i.e. convention led practices. This approach is also critiqued with regard to the understanding of material and spatial practices that emerges here.

Chapter four draws on Lefebvre’s theories of the everyday, social space and rhythm analysis in order to develop an account of the forms and ways in which spatiality enters into pedagogic practice. It is argued that spatiality (or space/time) constitutes one aspect of the materiality of life generally, and of pedagogic practice more specifically; another aspect of the materiality of life is technology. However, the primary interest here is in space/time, and more specifically in the routine bodily habits and rhythms or spatial practices, that contribute to the constitution of pedagogic practice.

Chapter five describes the research design and discusses methodological issues arising from the study. The study takes the form of a multiple-site, embedded explanatory case study in two school sites. The core data is derived from observations of lessons in these schools, while secondary data is derived from observations of practices outside the classrooms, and from a questionnaire given to teachers in the schools. Data construction differentiates
between aspects of pedagogic and social practices inside and outside the classroom.

Chapter six pulls together the conceptual resources developed in chapters two to four. This chapter translates the conceptual framework into a more concrete analytic framework, or what Bernstein calls an external language of description, for the analysis of data.

Chapter seven provides an analysis of the data texts derived from lesson observations, while chapter eight provides an analysis of the data texts derived from institutional practices outside the classroom.

Chapter nine discusses the analysis in order to draw out broader empirical and theoretical implications. This chapter reviews and concludes the study.
Chapter Two: Bernstein’s discursively regulated pedagogic practice

In this and the two following chapters, I review three approaches to understanding the relationship between discourse, interaction and space/time and technology practices in the theory of Bernstein, Lefebvre, and situated practice theorists such as Chaiklin, Lave and Wenger. I have selected these three approaches because of the differences between them as regards an explanation of social (specifically pedagogic) practice: I will argue that Bernstein privileges the discursive regulation of pedagogic practice, the situated practice theorists privilege interaction in relation to both pedagogic and other social practices, and Lefebvre foregrounds space/time and material practices in relation to all social practices. Bernstein’s theory is taken as a reference point, in the sense that I begin with his description of pedagogic practice and then draw on situated theory and Lefebvre’s theory of space and rhythms to test, challenge and develop Bernstein’s theory, particularly with regard to the relationship of pedagogic practice to particular school contexts.

In working with multiple theoretical resources, I take my example from Lefebvre, who drew simultaneously on Hegel, Marx and Nietzsche, arguing that each grasped something different about the world (Lefebvre 2003 p. 43). However, this is not intended to be an additive combination. Instead, each approach is used to interrogate, extend and reposition the other. The purpose is to arrive at a conceptualization that does not replicate or join up the sources but rather has its own internal coherence.

For purposes of developing a framework for my own analysis in chapter six, I will first provide an overview of relevant elements of the three theoretical approaches. I will then explore contradictions and complementarities between these three approaches. Thus this and the next two chapters provide both a review of relevant theoretical approaches and a basis for the development of a conceptual and analytic framework for the study.
My general approach is to consider explanations of social practice in terms of the components of practice – and of social life more generally – which are privileged in particular theories. These components are the mental (more specifically the discursive), the social (more specifically the interactional) and the material (incorporating space/time and technology, or tools).

The selection of these three categories - mental, social and material – as organising principles for a description of human activity is itself a theoretical move based on Lefebvre (1991 p. 11-12) who identifies these three fields of human activity and associates them with three ways of ‘knowing’ space: mental space, physical (or natural) space and social space. Gerber argues that this triad recurs ‘time and again in philosophy and also more recently in geography’ (1997 p. 2). Parallels can be found elsewhere, such as in Piaget’s three ways of knowing: sensory-motor, operational and symbolic, or Habermas’s distinction between the plane of the material, the world of the mental acts of subjects and the inter-subjective world of socially shared semantic propositions (Reckwitz 2002). Lahelma’s (2002) and Gordon et al’s (1999) ethnographic studies of school life in Helsinki arrived at a similar triadic perspective. As will be shown below, discourse, interaction and what Bernstein calls location, are also the constitutive elements of pedagogic practice in Bernstein’s theory. However, in Bernstein’s case, these three elements do not constitute a triadic theory. Instead, as will be discussed below, real space and materiality are taken to be a subordinate element within a strongly dyadic theory premised on differentiation between a series of binaries including (metaphorical) space and time, the symbolic and economic domains, power and control, structure and interaction and so on.

By implication, a triadic approach is a rejection of explanations which set up dualistic oppositions between culture and nature, or discourse and social relations, or mind and matter, thus nominating a privileged term (A) and categorising everything that is not-A in the supplementary term (Massey 1992, Derrida 1967). Dualistic explanations necessarily lose the third term by absorbing it into the supplementary not-A category. For example, counterpointing nature with either mind or society loses the explanatory
distinction between symbolic and social interaction, while counterpointing language with social interaction backgrounds the constitutive contribution of objects and space. Lefebvre reviews the tradition of dyadic thought in philosophy and the emergence of triadic analyses since Hegel (Lefebvre 2003 p. 50, 66). He suggests that triadic analyses overcome the stability - or sterility - of dyadic analyses to offer a more dynamic approach to internally contradictory and changing phenomena.

Whether an account is premised on two categories or three, the challenge remains to explain the relationship between the categories or, as Lefebvre puts it:

… to reconnect elements that have been separated and to replace confusion by clear distinction; to rejoin the severed and reanalyse the co-mingled (1991 p. 413).

Privileging discourse: Basil Bernstein

The rest of this chapter will focus specifically on Bernstein’s theory of pedagogic practice. My purposes are four-fold: (1) To review specific elements of Bernstein’s theory that are to be recruited within my conceptual framework in subsequent chapters; (2) To contextualize Bernstein’s theory of pedagogic practice within his broader intellectual project in a way that informs my recruitment of elements of this theory; (3) To show why and how Bernstein privileges discourse in relation to interaction and material practices within pedagogic practice in schools, i.e. to review his presentation of the former as regulative of the latter; (4) To examine and critique Bernstein’s understanding of space/time and material practices within pedagogic practice.

For Bernstein, pedagogic practice is a transformation of pedagogic discourse. Within a broader process of the recontextualization of pedagogic discourses, pedagogic practices distribute symbolic resources within the symbolic field. Pedagogic discourses and practices are nevertheless grounded in the social division of labour within the field of production. Bernstein achieves this ‘once remove’ of practices within the symbolic domain from structuring social relations with reference to the boundary and articulation between the symbolic
field and the field of production (1973 p. 135-6). Discourse is seen as the carrier of power and control in the symbolic domain, and as such it is regulative of the interactional and material dimensions of practices that distribute symbolic resources. This distribution, in turn, contributes to the reproduction of broader social and material inequalities. It is the logic of this argument – set out more fully below – that enables Bernstein to argue that symbolic relations and discursive activities and structures are dominant over, or regulative of, social relations in the symbolic field, but ultimately subordinate to and reproductive of social relations in the social formation as a whole. In short, pedagogic practice is both the realization, at the micro level, of a relay of power and control from the macro to the micro level and the means whereby inequitable structural relations are reproduced in the cultural sphere.

Bernstein’s work originated as part of a broader concern in the 1960s and 1970s, shared with others such as Willis, to unpack the black box of educational reproduction theory. This concern was still evident in 1990 when he argued that the neo-Marxist tradition, incorporating Gramsci, Althusser and Poulantzas, provides an initial but still inadequate explanation of the relation between ideology and consciousness (1990 p. 134). His understanding of the grounding of the discursive in a social and material base follows Althusser’s theory of ideology which ‘...was made the basis of the relation between code, voice and the construction of the subject’ in his work (Bernstein 1990 p. 4). In line with Althusser’s notion of a social/material base and a symbolic superstructure, Bernstein argues that class relations generate, distribute, reproduce and legitimate distinctive forms of communication which transmit dominant and dominated codes (Bernstein 1990 p. 15; 1971 pp. 135-136).

The analytic separation and articulation of the field of production and the symbolic field enables Bernstein to bracket three 'moments' in his coding theory, drawing on different theoretical resources to address each moment. These moments are (a) the formation of social relations based on the division of labour in the field of production, (b) the translation of class experience into forms of consciousness within homes and schools and (c) the orientation of
communicative practices to these forms of consciousness which position subjects within the symbolic field and regulate the distribution of symbolic resources. By bracketing his theory in this way Bernstein is able to move seamlessly from (a) the structural paradigm of Althusser via (b) Durkheim's social solidarity theory linked to Vygotsky's activity theory into (c) a discourse theory of his own which is not dissimilar in its representational nature to that of Foucault. In terms of this theory, activity within the symbolic field is simultaneously symbolically regulated and socially grounded. This point is given emphasis in Bernstein's criticism of Foucault who, Bernstein asserts, disconnects the discursive from the material by providing a strong explanation of discourse 'in a way [that] is discourse without social relations' (Bernstein 1990 p. 134).

Within the field of production, practices are regulated by social relations arising from the social division of labour. Although the distribution of physical, or material, resources gives dominance, the material is nevertheless an inert 'resource', which is distributed and regulated within social relations.

Within the symbolic field, on the other hand, the distribution of symbolic resources gives dominance and discourse regulates practice. Bernstein suggests that the symbolic field and the field of production are empirically separable in this way; not only are they based on different types of resources but they operate through different institutions. Schools, for example, are regarded as socialisation institutions located in the symbolic field.

For Bernstein, coding provides the node of articulation between the symbolic field and the field of production. Coding refers to the condensation of shared experience into ritualized and symbolic forms that are distributed through communication within socialisation institutions, particularly family and school (Atkinson 1985 p. 58). Codes are initially acquired through primary socialisation processes within the family via learning of language and other symbolic systems. While codes are elaborated within the school, acquisition at school is oriented by codes that have been acquired earlier, in the home. The key features of particular coding orientations are recognisable as
competencies relating to modes of classification. Thus by the age of six, children from middle class families perceive and classify the world differently than do children from working class families (Bernstein 2000 p. 16. See also Holland 1981; Morais and Neves 2001; Daniels 2001b). These differences orient working class and middle class children differently to school knowledge.

Coding translates social power - based on identities relating to the division of labour and sustained by the distribution of physical resources - into symbolic power - based on identities relating to forms of consciousness and sustained by the distribution of symbolic resources (Bernstein 1975 p. 134 - 135). Consequently the symbolic field has its own internal logic which is discursive, in that forms of consciousness are discursively constituted, or coded. Within the field of symbolic control the social and material are subordinated to this discursive logic. They become part of communication and function as extensions of discourse. This does not mean that social interaction and material practices are not implicated in discursive practice. What it does mean is that their involvement is structured by ideologically imbued discourse.

Bernstein’s position, based on Durkheim, exemplifies and can be located in a broader tradition within sociology - a tradition that brackets the regulatory influence of discourse within the symbolic sphere, and at the same time anchors discourse in social relations. Reckwitz (2002) argues that the sociology of knowledge has produced three ways of understanding the relationship between the cultural, or symbolic systems of meaning, and the material. The first, found in the classical sociology of Durkheim and others, is based on the idea that social structures are foundational to symbolic orders. The second, found in theories of structuralism, rejects the notion of a foundational pre-discursive social structure. The third, found in radical practice theories such as that of Latour, dissolves the boundary between the discursive and material categories completely. What I have called the ‘once removed’ cause of symbolic action falls within the first category. Reckwitz refers to this as a cultural-materialist ‘double’. In terms of this double:

… not social structure, but only the cultural structure of shared knowledge renders the structured nature of human action
understandable – this is the culturalist argument in the sociology of knowledge. Yet ‘in the last instance’ the cultural structure is determined by a material social structure – this is the materialist argument, which the sociologists of knowledge also support (2002 p. 197).

I now turn to Bernstein’s understanding of the relation between discursive, interactional and space/time and object related practices within the symbolic sphere and specifically within pedagogic discourse and practice. My intention is to review how, within the logic of Bernstein’s theory, pedagogic discourse regulates interaction, which in turn regulates space/time and technology practices – i.e. how discourse generates context through practice.

**Discourse, practice and context**

The notion of context generally refers to that which is not essential to or determining of practice, that which is in place before practice commences, or left behind when practice ceases or is ‘abstracted’. Bernstein sometimes uses context in this way, i.e. to refer to the site of practice, but more often he refers to context as a product of practice. This position follows from his argument that symbolic structures and practices regulate social and material practices and relations within the symbolic field.

Bernstein’s interest relates not to practices and contexts in some general or generic sense but to communicative practices and contexts, specifically pedagogic practices and contexts. In this regard, context is produced by discourse, in the sense that context refers to a particular ordering of space, objects and interactions by discursive practices. Practices are shaped by the structure of the discourses that they transmit, where structure refers to the internal organisation of the elements of a particular discourse as well as the boundary, or relation between, this and other discourses (Bernstein 1990 p. 35).

**Pedagogic discourse**

Pedagogic discourse does not refer to knowledge forms as they are constructed in the field of production of knowledge but rather to forms of
knowledge as they are reconfigured within a pedagogic context such as a schooling system. In these terms mathematics, for example, is distinct from school mathematics. The form of school mathematics, as understood by the teacher, is conditioned by the operation of the broader systemic organisation of school knowledge.

Strictly speaking, pedagogic discourse is not a discourse at all since it has no content of its own but is a recontextualizing principle for other discourses:

I want to sharpen the concept of the principle which constitutes pedagogic discourse, by suggesting, formally, that pedagogic discourse is a recontextualizing principle. Pedagogic discourse is constructed by a recontextualizing principle which selectively appropriates, relocates, refocuses and relates other discourses to constitute its own order. In this sense, pedagogic discourse can never be identified with any of the discourses it has recontextualized (Bernstein 1996 p. 47).

Bernstein argues that there are two components to pedagogic discourse: An instructional discourse and a regulative discourse (Bernstein 1996 p. 46, 117). The instructional discourse constitutes the ‘what’, or content, such as science while the regulative discourse constituted the ‘which, how, when, where and to whom’ of the pedagogic discourse. Thus the instructional discourse is always embedded in the regulative discourse.

The regulative discourse is a normative discourse. It carries the principles for making selections from discourses in the field of production of knowledge, such as scientific research, and recontextualizing such elements into the pedagogic field in combination with selections from a range of discourses such as psychology, sociology, economics, politics and curriculum studies, all of which inform decisions about what should be taught and learned by whom at what age and in what way. It includes a ‘theory of instruction’:

The theory of instruction also belongs to the regulative discourse, and contains within itself a model of the learner and of the teacher and of the relation. The model of the learner is never wholly utilitarian; it contains ideological elements. The recontextualizing principle not only selects the what but also the how of the theory of instruction. Both are elements of regulative discourse (1996 p. 49).
Thus school history, for example, is constituted with reference to both instructional and regulative components. This might result, for example, in a curriculum that prescribes that younger learners should learn local, social history through engagement with oral sources rather than global political document based history through engagement with secondary sources. This example illustrates Bernstein’s argument that pedagogic discourse can be seen as a bringing together of selections from other discourses rather than a discourse in its own right (Bernstein 1996 p. 46). It also shows how, within pedagogic discourse, the regulative component is dominant in relation to the instructional component in that it provides the basis for selections from and mediation of the instructional discourse. ¹

In addition to regulating the selection and combination of elements from ‘source’ disciplines (such as history and psychology), the regulative discourse also regulates the general social order (or ‘good behaviour) in the classroom pertaining to interaction, movement dress etc. While the instructional discourse is embedded in the regulative discourse, and it is not possible to have instructional discourse without regulative discourse, it is possible to have regulative discourse without instructional discourse. In other words it is possible to regulate learner behaviour even when no transmission of instructional content is taking place.

**The pedagogic device**

The constitution of pedagogic discourse takes place in a relay action across a number of levels, the most salient being the level of an education department (or what Bernstein calls the official pedagogic recontextualizing field), the level of the school and the level of the classroom within a school (termed the local pedagogic recontextualizing field) (Bernstein 1990 p. 190). At each level there is room for play in the process of selection and combination that

¹ In the light of this understanding of pedagogic discourse, a subject such as ‘life skills’ sometimes provides an interesting ‘crossover’ case in that it is not uncommon for that which is traditionally considered to be regulative, such as group work, to be constituted as instructional content. In fact, it would be of interest to examine the extent to which such ‘crossovers’ occur in curriculum 2005 more generally - and to consider why this is the case.
constitutes the discourse. Bernstein relates this ‘play’ to ideology. In other words, the redefinitions that occur are the consequence of ideological differences rather than factors such as material constraint or the limitations of teacher knowledge (Bernstein 1990 p. 188).

Bernstein uses the term 'pedagogic device' to refer to systemic and institutionalized ways in which knowledge is recontextualized from the field of knowledge production into the schooling system, and its distribution and evaluation within the schooling system. The pedagogic device regulates which learners (of which age) are required to acquire which content in which time and place by which pedagogic mode; and what is to count as appropriate realizations of learner acquisition (Bernstein 1996; 2000). The operation of the pedagogic device at the systemic and/or local level introduces additional organisational and framing features which cannot be derived from the form of the discourse as it exists in the field of knowledge production. Questions about when particular content is taught and the pace at which it is 'covered' within the curriculum are explained with reference to the school subject as constituted by the operation of the pedagogic device rather than by the features of the source discourse in the field of production of knowledge.

The pedagogic device is, in effect, a device that relays power and control from the macro to the micro level. It distributes and limits available forms of knowledge. However, it does so in ways that are contextually (i.e. historically and spatially) specific (Bernstein 1990; 2000). Historical conditions within any given state impact on the degree to which control is centralized and the ways in which it is enacted through the pedagogic device. Struggles to insert new meanings into schools at a society wide level necessarily take the form of a struggle for control of the pedagogic device. Herein lies Bernstein’s answer to those who look for agency, resistance and change in his theory of pedagogic practice.

Lamnias (2002) argues that the internal operation of the pedagogic device necessarily renders it potentially ineffective. This arises from the fact that there is room for play in the constitution of the pedagogic discourse at every
node of recontextualization, and also from the ongoing struggle for control of the pedagogic device, or sections thereof. For these reasons, argues Lamnias, there is tension in Bernstein’s theory between the macro and micro features of the pedagogic device. On the one hand, it is a relay device, but on the other hand, the operation of the device at the micro level is not reliably predictable.

Lamnias’ concerns do not amount to a rejection of the usefulness of the concept of a pedagogic device. Instead, they caution the researcher to guard against an understanding of the operations of the device as simple and mechanical, and against neglecting the historical and spatial specificity of the operation of the pedagogic device in different times and places. This caution is echoed in Lefebvre’s warning against an inclination, in structural analyses, to assume that relays of power and control from the macro to the micro level necessarily operate effectively. In fact, Lefebvre specifically cautions that structuralist approaches make less sense in developing countries than in developed countries, on the grounds that such relays are not necessarily effective where state control is less deeply distributed into institutional forms (Lefebvre 2003 p. 39).

The transformation of pedagogic discourse into pedagogic practice

The form of pedagogic discourse is constituted through classification and framing. Framing relates the elements within a pedagogic discourse while classification refers to the relation between different pedagogic discourses, specifically in terms of the boundaries between discourses that render such discourses distinct from each other, or specialized (1996 p. 20; 2000 p. 7).

Classification thus defines and bounds the ‘what’ of pedagogic discourse; the (strong or weak) boundary between one discourse, such as school mathematics, and another, such as social studies or art. In a sense, classification precedes framing; it is another level of analysis (1996 p. 19).
Classification creates the discursive structure from which communicative acts ensue:

The classification principle is often invisibly present in the sense that it is presupposed (Bernstein 1990 p. 54).

Framing refers to control of pedagogic processes, or practices, which relay a category of discourse (2000 p. 12). Bernstein defines framing as:

… the locus of control over the selection, sequencing, and pacing of criteria of the knowledge to be acquired (Bernstein 1996 p. 101).

and, he elaborates:

… framing is concerned with how meanings are to be put together, the forms by which they are to be made public, and the nature of the social relationships that go with it (Bernstein 1996 p. 27).

Framing communicates the content, competences and specialized features or internal structure of a particular discourse through selection, sequencing, pacing and evaluation (Bernstein 1990 p. 33). Framing communicates to the acquirer what to do, how to do it and whether it is correctly done. It enables the acquirer to realize the competences internal to the particular discourse i.e. to generate statements within the grammar of that discourse.

Pedagogic modes can be differentiated in terms of the strength or permeability of classificatory boundaries and the strength of the transmitter’s control of framing. The strength of framing refers to the degree of control that the transmitter exerts over the framing processes. Thus strong framing refers to explicit control by the transmitter while weak framing refers to the ceding of control by the transmitter to the acquirer. This weak framing is not to be confused with a loss of control by the transmitter. When pedagogic control is ceded through weakened framing in order to achieve particular pedagogic purposes (such as a learner centred approach), it can potentially be reclaimed by the transmitter (Bernstein 1996 p. 27; 107).

In addition to control of selection, sequencing, pacing and evaluation, pedagogic practice necessarily involves framing of the social order i.e. ‘expectations about conduct, character and manner’ (Bernstein 1996 p. 27).
Regulation of the social order may continue even in the absence of transmission, i.e. when there is no actual teaching or transmission taking place. In this case there would be regulative discourse without instructional discourse:

It may well be the case that in some circumstances the school’s instructional discourse is suspended and the discourse then is wholly regulative (Bernstein 1990 p. 108).

But framing has multiple gears:

It is possible for framing values – be they weak or strong - to vary with respect to the elements of the practice, for example, you could have weak framing over pacing but strong framing over other aspects of the discourse (1996 p. 27).

Similarly the strength of framing of the instructional order can differ from the strength of framing of the social order:

We can distinguish analytically two systems of rules regulated by framing. And these rules can vary independently of each other, that is, their framing values can change independently. These are the rules of the social order and the rules of the discursive order ... The strengths of framing can also vary between instructional and regulative discourse, for example, with weak framing of regulative discourse and strong framing of instructional discourse. It is very important to see that these discourses do not always move in a complementary relation to each other. But where there is weak framing over the instructional discourse, there must be weak framing over the regulative discourse (1996 pp. 27-28).

Framing transmits the pedagogic discourse and in so doing, enacts the classificatory system to which that discourse belongs. For example, through selection and evaluation, framing either transmits history as a separate subject or transmits history as a component of social studies. But framing also carries the possibility of re-organising those features and, in effect, altering the classification.

... the principle of the social division of labour necessarily limits the realization of its practices, yet the practices contain the possibility of change in the social division of labour and thus of their own change (Bernstein 1990 p. 33).

In this way framing carries the potential to disrupt classification, i.e. to change the classification through changing framing (1996 p. 33). The potential to
enact or frame an alternative or ‘yet to be voiced’ (1990 p. 30) discourse is limited by prevailing structuring of social relations and organisational practices that give social and material form to classifications. At the same time, there are potential contradictions in the prevailing order ‘created by the principle of classification’ (1990 p. 30) which provide opportunities for the insertion of alternative discourses. This brings us back to the point made above that there is room for play within the operation of the pedagogic device.

For purposes of this study it is important to note that Bernstein sees resistance as premised on an alternative ‘yet to be voiced’ discourse (1990 p. 30) expressed, or realized, in different framing which in turn generates a different context. Thus change in pedagogic practice issues from friction between alternative discourses (albeit discourses that are manifest in social and material orderings) and not, for example, from adaptation to contextual factors.

The acquisition of knowledge is premised on the learner’s engagement with classification, through recognition, and with framing, through realization (Bernstein 2000 p. 16). Firstly, at the level of classification, the learner must recognize the difference between one discourse and another. The learner needs to be able to say, ‘this is mathematics, not economics’. Secondly, at the level of framing, the learner must ‘do’ mathematics, i.e. enact or realize the grammar of the discourse by producing statements within the rules of that grammar.

In Bernstein’s description of pedagogic practice in schools, the material aspects of the pedagogic context are regulated by pedagogic discourse at the level of the classroom, albeit constrained by external classification and framing at the level of the school and system. In this approach (Bernstein 1990 p. 34-37 & 175, 1996 p. 59), there are two levels to pedagogic practice: the teacher organizes – or frames - the interaction of the learners in ways that accommodate transmission of the pedagogic discourse and orders the physical space and objects in ways that accommodate the required forms of interaction (Bernstein 1982 p. 323; 1990 p. 24). Thus pedagogic discourses
are transformed into pedagogic practices, which in turn produce pedagogic contexts through the ordering of interaction and location elements within those contexts. This aspect of Bernstein’s theory – the relation between framing of interactional and locational components of framing – will be discussed more fully below in relation to Bernstein’s concept of space.

Bernstein sums up the process described here as follows:

We shall now show that the recognition and realization rules establish the context. First, a classificatory principle, through its insulation, constitutes the degree of speciality of the communicative context and in so doing provides the limits of its communicative potential. The classification principle creates the specific recognition rules whereby a context is distinguished and given its position with respect to other contexts. Thus classification regulates spatial orderings and thus the locational principle. The interactional principle of the communicative context creates the specific message, that is, the specific rules for generating what counts as legitimate communication/discourse and so the range of possible texts. The interactional principle creates the specific realization rules for these texts and in so doing regulates temporal orderings. The communicative context is constituted by the recognition and realization rules, and these rules when acquired by communicants create the competence. Classificatory principles establish recognition rules, and we shall see that framing principles establish realization rules (Bernstein 1990 p. 35).

**Vertical discourse and horizontal discourse**

The discussion thus far has set out the logic of pedagogic practice i.e. pedagogic discourse produces context through interaction that in turn regulates space/time and technology related practices. However, this logic applies only to vertical discourse – not to horizontal discourse. The relation between discourse, interaction and location has a different logic when it comes to the transmission and acquisition of horizontal discourse.

Bernstein argues that the acquisition of vertical discourses or ‘specialized knowledges with their essentially written forms’ – including all academic discourses – necessarily involves relating any component to the ‘systematically organized principles’ of the discourse as a whole. As the ‘systematically organized principles’ are internal to the symbolic structure of
the discourse, transmission and acquisition are regulated by a symbolic
system that is disembedded from the pedagogic context.

A vertical discourse takes the form of a coherent, explicit, systematically principled structure, hierarchically organized, or it takes the form of a series of specialized languages with special modes of interrogation and specialized criteria for the production of texts (Bernstein 1996 p. 171).

Horizontal discourses or ‘oral based everyday knowledges’, on the other hand, have no systematically organized principles whereby the discourse is disembedded from its context, thus their transmission and acquisition achieve their coherence in relation to the task at hand; acquisition is ‘segmented and context specific’ (Bernstein 1996 pp. 170-172; see also 1999).

It follows from this that the acquisition of horizontal discourses – unlike vertical discourses – is strongly responsive to context, i.e. to interaction within a community of practice and to location. Bernstein spells this out at some length:

Here we could make a distinction between the reservoir of strategies created by all the members of a group and the particular repertoire developed by a member in response to a particular habitat. Thus the repertoires of members, whilst having a common nucleus, will be different, as a function of differences in their everyday encounters. Here we can ask what is the regulation on the relation between the reservoir and the repertoire: between the potential and actual member’s practice? Isolation of members is not an effective social base for the development of either reservoir or repertoire. Practical mastery here depends upon the structuring of social relations, for then both reservoir and repertoire gain. The relation between potential and member’s practice here is dynamic. Any impedance to circulation and exchange reduces effectiveness or specializes or classifies it. Stratification of members or groups produces classification and framings of the relations between reservoir, repertoire and practical mastery, and introduces distributive rules (Bernstein 1996 p. 171).

Horizontal and vertical discourses are also associated with different modes of transmission:

The acquisition of segmental competences or literacies, unlike the procedures of vertical discourses, is likely to be tacit, with reduced or condensed linguistic elaboration often through a pedagogy of modelling or example. However, because a discourse is horizontal and is segmentally realized, it is, of course, possible that some segments may be realized by vertical discourse (Bernstein 1996 p. 179).
The criteria for legitimate practice, or mastery, are derived differently in vertical and horizontal discourse. Bernstein argues that as regards both vertical and horizontal discourse it is possible to draw a distinction between mastery, or potential practice, and the actual practice of any one person (1996 p. 171). In the case of vertical discourse, the closeness of actual practice to potential practice is a function of the access of the individual to the explicit, systematically organized principles that constitute the potential discourse; it is discursive mastery. In the case of horizontal discourse closeness to the potential discourse is a function of access of the individual to the reservoir of the practice community, and recognition of the acceptability of the individual’s practice by the practice community i.e. practical mastery.

In the case of horizontal discourse, development of practice arises from interaction that makes available additions to the individual repertoire from the group reservoir, and from adaptations to ‘practical encounters’ with social and material realities within the context of practice. In other words, practice – and specifically its interactive and material components – generates and regulates discourse, and not vice versa, as is the case for vertical discourse.

The boundary between vertical and horizontal discourse is not impermeable at its margins. Vertical discourses, such as crafts, might have a non-hierarchical internal structure with a weak grammar and tacit modes of transmission (1996 p. 175). Such discourses are vertical in some respects and not others, or have vertical as well as horizontal components. Similarly, as Bernstein says in the quote above, ‘it is, of course, possible that some segments [of horizontal discourse] may be realized by vertical discourse’ (Bernstein 1996 p. 179). Gardening, for example, might be described as a horizontal discourse that contains vertical elements, drawn from botany and other relevant vertical discourses.

In short, the organising referent for pedagogic framing is different depending on whether the discourse is vertical or horizontal. The transmission of vertical discourse takes as its referent the context independent content and internal
structural relations or grammar of the pedagogic discourse. Successful transmission gives the acquirer access to the relation of the text to the internal system of symbolic relations of the discourse.

The transmission of horizontal discourse takes as its referent contextually contingent knowledge. Communication would often be ‘tacit, with reduced or condensed linguistic elaboration often through a pedagogy of modelling or example’, to repeat Bernstein’s words quoted above (1996 p. 179).

**Variations in pedagogic practice**

Bernstein’s theory implicitly and explicitly suggests a number of explanations for variation in pedagogic practice. Firstly, teacher practice is externally framed or controlled, through the operation of the pedagogic device in the form of syllabi, teacher education, and so on. Secondly, teacher practice is constrained by social structures of schooling in the form, for example, of subject departments. Thus variations in classification and framing of pedagogic discourses and associated social structures through the operation of the pedagogic device would produce variations in teacher practice. Thirdly, there is room for the play of ideology at the point where the teacher transforms pedagogic discourse into pedagogic practice. Within the constraints of external classification and framing of the pedagogic discourse, the teacher makes her own recontextualizing choices. Fourthly, variations in the teacher’s command of the instructional discourse would impact on the choices available to the teacher.

However, all these factors operate within the logic of the form of the discourse that is to be transmitted, which in schools is generally taken to be vertical discourse:

I shall propose that the mode of acquisition is created by the form taken by the pedagogy. And the pedagogic interventions, in turn, are a function of the different ‘knowledges’ required to be acquired (1999 p. 160).

Bernstein presents the distinction between vertical and horizontal discourse with their associated transmission practices as ideal types that are not
necessarily found as pure types in the empirical world. But even though discourses are not necessarily pure in structure, there remains a necessary cohesion between knowledge structure and mode of transmission. If an acquirer is not given access to the grammar of a vertical discourse, then what is acquired is not a vertical discourse. A vertical discourse can only be transmitted through vertically oriented practice, or recontextualization of the grammar of the instructional discourse. A vertical discourse cannot be transmitted through pedagogic practice based on modelling of unrelated segments of practice. Where this occurs, vertical discourse is horizontalized.

Bernstein gives the example of a trend within pedagogy to relate institutional knowledge to the everyday experience of learners, ostensibly to make the knowledge more accessible (Bernstein 1999). The effect, however, is to segmentalize the knowledge and deny the learners access to the grammar of the instructional discourse:

Vertical discourses are reduced to a set of strategies to become resources for allegedly improving the effectiveness of the repertoires made available in horizontal discourse (1999 p. 169; see also 1996 p. 178).

With this example Bernstein opens up the possibility that pedagogic practice might transform a potentially vertical discourse into a horizontal discourse within an institutional context. However, Bernstein sees this horizontalization of pedagogic discourse as part of, rather than a breakdown of, recontextualization by means of the functioning of the pedagogic device. It is part of the systemic distribution of different ‘knowledges’ to different social groups (1996 p. 178), or it is motivated by a desire to ‘facilitate access’ (1999 p. 169). In short, it is still regulated by an explicit or implicit conceptualization of what should be taught and how it should be taught. But in this case, the regulative discourse reconfigures the instructional discourse in a way that has the effect of horizontalizing it.

Ensor (2002) draws on but extends Bernstein’s theory to argue that pedagogic practice in schools necessarily has a tacit component, suggesting that there is an excess of practice over the discourse that regulates it. Ensor’s move is crucial to the approach being developed here. It opens up the possibility that
pedagogic discourse is a hybrid activity in that it can (at least to some extent) be regulated by factors other than the pedagogic discourse. There may be referents for the teacher’s practice other than or additional to the discourse itself, and these referents would be contextual. Such referents would generate elements of practice that are not derived consciously or unconsciously from understandings of the discourse but rather from adaptation to contextual affordances or constraints or circulated as segmental models of practice. This move loosens the notion of coherence between the structure of the discourse and pedagogic practice. It becomes possible to look at the content that is transmitted separately from the mode of transmission. It becomes possible to ask about the degree to which the grammar of the pedagogic discourse regulates pedagogic practice, and to ask what the regulative effects of contextual referents are on the practice.

In this approach, Bernstein’s position - that the pedagogic discourse regulates pedagogic practice - may be expanded as follows: Pedagogic practice can successfully transmit a vertical pedagogic discourse to the extent that the discourse is the dominant organising referent for the practice, and to the degree that learners are given access to the grammar or generative principles for the discourse.

To return to the question for this study: How are discourse, interaction and space/time and technology related in pedagogic practice? In Bernstein’s terms, they are related according to the logic of vertical discourse, which is that discourse regulates interaction, which in turn regulates ‘location’. But – also in Bernstein’s terms - they would be differently related to the extent that pedagogic competence is horizontal-discourse like. In this case, discourse would emerge from, rather than regulate, interaction and space/time and technology practices in particular contexts.

This line of argument suggests that the more horizontal discourse-like teacher competence is the more responsive teacher practice potentially becomes to context, and specifically to contextualized space/time/technology practices, along with interactional practices.
Pedagogic practice within the institutional context

Ball (1990) has commented that Bernstein’s theory does not account for the relation between pedagogic practice and institutional context. In response, Bernstein sketched a conceptual framework for the relation between pedagogic discourse and institutional contexts (2000). He argued that the institutional context can be thought of partly as a container that is shaped by the pedagogic mode (i.e. by the form of pedagogy given through classification and framing):

The social division of labour of discourses, transmitters and acquirers (classificatory principle) and the social relations (framing), effect what we would call the shape of the container. As $C^a / F^a$ change their values, administrative units, relations within and between these units, and in particular their governance, also change, and therefore effect the shape of the container (2000 p. 23).

These changes are political, in the sense that they are achieved through conflict and consensus, and they are economic, in the sense that they are achieved through the use of available resources; they have their origin in the pedagogic mode but their achievement is mediated by contextual political and economic conditions. Finally, their achievement is also regulated by externally imposed criteria that the agency (school) is required to meet, derived from a particular bias such as, for example, marketization. Taken together, Bernstein proposes, the contextual factors that are not derived from the pedagogic discourse may be referred to as a pedagogic culture. In this way, Bernstein sets up a relation between the regulative effects of the mode of pedagogic discourse, on the one hand, and contextual political, economic and policy conditions, or pedagogic culture, on the other. He concludes this discussion:

We can now also consider the inter-relations between the pedagogic culture and the pedagogic code. Pedagogic culture is the mode of being of the agency’s social relations as they cope with its bias, shape, stability and economy (2000 p. 24).

With this passage Bernstein opens a line of enquiry (that he unfortunately never had the opportunity to explore further) into the relation between pedagogic practice and contextual factors that are not derived from the pedagogic code, i.e. not produced through the operation of the pedagogic device. In doing so, I suggest, he moves away from the premise evident in his
earlier work that an analysis of practices in the symbolic domain should focus exclusively on discursive regulation and introduces an additional focus on social relations and interaction that are not discursively regulated. In his earlier work, the school as an institution is seen to comprise two interrelated systems: 'an instrumental order concerned with the transmission of specialized skills and an expressive order concerned with the transmission of conduct, character and manner’ (1996 p. 98). These systems vary according to whether the discursive orientation of the schools’ curriculum was towards an open, integrated system, resulting in a tendency between a differentiated organisational structure, or towards a closed, collection system, resulting in a tendency towards a stratified organisational system. This formulation does not take into account features of school life that are not regulated by pedagogic discourse.

Tyler (1988) drew on Bernstein as well as Foucault to develop a framework for a sociology of school organisation premised on the notion that discursive classification, or structures, are realized as surface patterns of organisational and interactional orderings. The specialization of time, space and the division of labour follow from, and are expressive of, such classifications. Once such specializations are achieved, they act as forms of disciplinary power. It is my contention that Bernstein’s comments in 2000 represent a shift from the position that schools – and practices within schools – can be explained exclusively in terms of discursive regulation within the symbolic domain.

This discussion puts into perspective ways in which context does and does not enter into Bernstein’s analysis. It has been mentioned that one of his primary purposes was to relate pedagogic discourse and practice at the micro level of the classroom to macro social structures and that he sees the context of pedagogic practice as a product of that practice. Yet what is underdeveloped in his work is the relation of pedagogic practice to the school as an institution, and specifically to those features of the school that are not derived from the pedagogic device and the form of the discourse that it recontextualizes. In his most recent work he begins to address that gap, suggesting that teacher practice must be explained at least partly with
A key purpose of this thesis is to explore ways in which the pedagogic culture is constituted through space/time and technology related practices within particular institutional contexts. In the next section, I consider how space, time and technology are understood in Bernstein’s theory.

**Location: Space, time and objects in Bernstein’s theory of pedagogic practice**

It has been mentioned above that, for Bernstein, there are two levels to pedagogic practice. The teacher organizes – or frames - the interaction of the learners in ways that accommodate transmission of the pedagogic discourse and orders the physical space and objects in ways that accommodate the required forms of interaction (Bernstein 1982 p. 323; 1990 p. 24; 1990 p. 34-37 & 175, 1996 p. 59). This distinction provides a starting point here for a discussion of the conceptualisation of space in Bernstein’s theory.

There was a shift in emphasis in Bernstein’s conceptualization of framing between 1990 and 1996 that is relevant to this study’s focus on how space/time practices are implicated in pedagogic practice. In the 1996 text the notion of ‘location’ is given much less prominence in the account of framing than in the 1990 text. For this reason, I will draw first on the earlier account and then comment on the implications of the ‘de-emphasis’ of space in the later work before proceeding to a more general discussion of space in Bernstein’s work.

**Framing interaction and location**

In 1990 Bernstein posited two types of framing processes: those that relate to control of interaction and those that relate to control of location. Control of interaction includes

... the selection, organisation, sequencing and pacing of communication - oral/ written/ visual - together with the position,
posture and dress of the communication (Bernstein 1982 p. 323; 1990 p. 24).

Control of location includes

... physical location and the forms of its realization i.e. the range of objects and their attributes, their relation to each other and the space in which they are constituted (Bernstein 1982 p. 323; 1990 p. 24).

While both interaction and location are regulated by discourse, the

...interactional principle is the dominating feature of the communicative context, for it is this principle which establishes, regulates and changes the possibilities of the two principles (Bernstein in Apple 1982 p. 323).

In other words, pedagogic discourses are transformed into pedagogic practices involving interactions that in turn organize the material features of the context. In this way, interaction and material 'stuff' is subordinated to and ordered by discourse:

It will be remembered that the distributive rules attempt to control the embedding and relating of the material in the immaterial, the mundane in the transcendental and the distribution of such meanings (Bernstein 1990 p. 183).

In this formulation, control of learners' bodies is seen to be part of interactional (rather than locational) framing. Later, however, the location of pupils' bodies is seen to be indicative of internal classification, in that it signals differences between the internal features of the context of one discourse and that of another.

In a classroom, for example, the locational position of pupils, teacher, desks, cupboard, wall ordering are a feature of the internal classification together with the distribution of tasks among pupils. In this way the principle of the internal and external classification of the pedagogic context is invisibly present in any communicative realization of the context (Bernstein 1990 p. 37).

In short, the arrangement of spaces and material objects – including bodies – is part of internal classification while the act or process of rearranging such spaces, objects and bodies is part of framing. Within framing, pedagogic practice regulates ways in which bodies are implicated in interaction and this in turn involves regulating their location.
Later, Bernstein developed his understanding of the interactional component of framing further, but seemed to lose interest in the locational component of framing. There is much less attention given to space (or locational practices) in the later theoretical overview of framing. Bernstein does little more than remark that the transformation of discourse into practice is premised on the specialization of space as well as time and text (1996 p. 49-50).

One can but guess why Bernstein was relatively uninterested in the ways in which space and objects are implicated in pedagogic practice. However, since he viewed spatial and material components of pedagogic practice as part of the context produced by pedagogic practice, and therefore expressive rather than constitutive of discourse and subordinate to interaction, it is reasonable to assume that he simply did not believe that closer attention to these components would be generative of useful insights. In other words, he considered these components of practice to have limited explanatory significance.

Bernstein’s account acknowledges the importance of specialization of space within pedagogic practice, but sees this specialization as a consequence and expression of specialization of the pedagogic discourse (Bernstein 2000 p. 35). Space is organized – and reorganized – to express shifts from one activity to another (say from spatial organisation required for a discussion to spatial organisation required for working at computer stations), or from one discourse to another (e.g. from history to science), or from one form of curriculum organisation to another (e.g. from strongly to weakly bounded content areas) or from one learning theory to another (e.g. from a performance to a competence oriented theory: See Bernstein 1996 p. 59). However these contextual spatial configurations are of limited explanatory value, in relation to pedagogic practice, except as a text that can be read in relation to discursive intentions and a product of those intentions.
There are four difficulties with this formulation. Firstly, it depends on a notion of space as separate from time (Bernstein 2000 p. 206). Absent from this account is any mention of movement, which involves both time and space. In order to sustain the distinction between space and time, and between interaction and location, the body becomes two bodies. First there is the body as inert object, located in space and ordered by locational framing, then there is the communicating body, read as text and ordered by interactional framing (Bernstein 1990 p. 34 - 37 & 175, 1996 p. 59). It is through this separation of the physical body from the communicative body that Bernstein achieves the analytic separation of space from time, classification from framing (Bernstein 2000 p. 206) and interaction from location. From this perspective, space is an inert but pliable product and constraint of discourse.

Secondly, this formulation represents spatial practices as having no specificity or logic of their own except as a derivative product of discursive and social practices. Discrete spatial configurations – including both spatial organisation and patterns of movement - are generated and structured in relation to the discursive and social structures and practices that produced them and not in relation to their articulation with a broader tapestry of spatial configurations. This point will be developed further below in a discussion of Hillier’s (2001) critique of Bernstein.

Thirdly, Bernstein’s formulation is premised on a view of pedagogic practice relating to vertical discourse, and as discourse led, rather than hybrid. Thus tacit responses to contextual material conditions are not seen to be regulative of practice, as might be the case with pedagogic practice relating to horizontal discourse.

Fourthly, the subordination of location, or the material features of the classroom, to discourse, implies that space has malleability and plasticity; it minimizes the resistance of space to manipulation for discursive purposes. This point can be illustrated with reference to Bernstein’s comment about the then new schools in 1975:
…the very architecture of the new schools points up their openness compared with the old schools. The inside of the institution has become visible (1975 p. 72).

This description captures the manner in which architecture materialized pedagogic intentions in the United Kingdom in the early seventies – i.e. at a particular time and place. But these material structures remained in place throughout the Thatcherite era, regardless of changes in hegemonic ideologies and pedagogic approaches at the level of the state, the school or the classroom. And so long as they remain in place, they offer an invitation, a pressure of sorts, to reproduce the practices of the seventies, and a constraint to other pedagogies. Produced space is sedimented time. It is these histories that render space resistant to discursive manipulation. Space – or rather space/time - speaks back. And in the face of this a model that neatly subordinates the material aspects of pedagogic practice to discursive purposes must, at the very least, be qualified.

Addressing Bernstein’s theory, Hillier suggests that there is a broader spatial frame, and that it may be conceived of as a spatial device, comparable to Bernstein’s social pedagogic device:

> Every society uses the ‘spatial device’ (Bernstein 1996) in some variant to realize itself in space, and exogenous factors like changes in technology affect space through the intermediary of the ‘spatial device’ (Hillier 2001 p. 55).

This frame relates spatial acts to each other:

Basil’s guiding metaphors were – as he himself says – spatial notions of ‘boundary’, which he specifies as ‘inside/outside, intimacy/distance, here/there, near/far, us/them. These notions for the most part describe our perspective on and our experience of space more than they describe space itself. In studying real space, we find that these notions get you into the problem, but don’t get you out the other side. This is because space is fundamentally more complex and richer than these terms suggest: it is relational. I do not mean this in a Leibnizian sense, but in the sense that space does not exist for us as discrete elements but as a continuous system of interrelatedness shaped by and shaping the way we live. In space, the pattern is the thing, much more than the elements that make up the pattern (Hillier 2001 p. 57; The emphases are those of the author).
In order to understand social practice, Hillier suggests, we need to understand both the specificity of space and its relation to the social structures in which it is embedded and which it materializes.

The four difficulties discussed above relate to Bernstein’s view of the specialization of space as an outcome of the specialization of pedagogic discourse. A different kind of difficulty with Bernstein’s understanding of space is his tendency to conflate real space with metaphorical space. Space is sometimes used to refer to physical, geographical space (such as the organisation of classrooms) and sometimes it is used metaphorically (for example in references to boundaries between discourses). In itself this is clearly legitimate, but these different meanings are intertwined in ways that conflate the ‘real’ and the metaphorical.

An example: In the closing paragraphs of Pedagogy, Symbolic Control and Identity, Bernstein castigates critics who base their criticisms on an inadequate understanding of his work. He categorizes the arguments and strategies these critics use as ‘religion, epistemological, discursive and time warping’.

Now if we relate religious, epistemological and discursive positioning possibilities with temporal possibilities (time warping), we have a truly formidable set of combinations for generating and particularising practices. We can render this slightly more formally. Religious, epistemological and discursive positioning are category relations, and so spatial and therefore subject to classificatory principles, whereas time warping is temporal, and so subject to framing. Thus we can see how classification and framing regulate positioning and how modalities are a realization of field-constructed motivations (1996 p. 201).

Bernstein’s actual disagreement with his critics is not my concern here. What is of interest to me is the way in which Bernstein sets up a differentiation between space/classification and time/framing - a differentiation that recurs frequently in his work. ‘Time-warping’ here refers to the placing of Bernstein's work in a particular literal historical time, ‘the temporal plane of [the theory’s] development’. But he does not refer to the spatial frame of the theory’s development, i.e. the United Kingdom. Instead the term ‘space’ is used
metaphorically to refer to classificatory boundaries between discourses and, in the process, 'real' space disappears. As was discussed above, real space only re-enters the analysis as a configuration of objects and bodies that are significant only in so far as they are acted upon by framing.

This confusion regarding the difference between and conflation of physical and metaphorical space feeds into an apparently ‘neat’ separation of space and time. Interestingly, time is always chronological, never metaphorical. Thus (sometimes metaphorical, sometimes physical) space is separated from (always real) time. In Bernstein’s analysis, space has no history and time has no geography. And as was discussed earlier, this separation necessitates and is sustained by a dualistic conception of the body.

**Concluding comments**

This chapter has reviewed Bernstein’s account of pedagogic practice in order to make this work available as a resource for this study. At the same time, the chapter has suggested that there are tensions and gaps within this work particularly with regard to the ways in which pedagogic practice relates to institutional contexts. On the one hand, Bernstein attempts to position pedagogic practice as discursively regulated. This is achieved through the functioning of the pedagogic device that recontextualizes pedagogic discourse and in so doing relays relations of power and control from the macro to the micro level. On the other hand, he retains the possibility of specificities of practice, individual agency and influences that are not regulated by the form of pedagogic discourse at the institutional and classroom level.

Pedagogic practice in schools follows the logic of transmission of vertical discourse to the extent that such practice is regulated by the form of the pedagogic discourse recontextualized by the pedagogic device. However, to the extent that pedagogic practice is also responsive to contextually based influences that are not regulated by pedagogic discourse, it follows the logic of horizontal discourse. The discussion in this chapter has suggested that
pedagogic practice is necessarily a hybrid practice in that it is influenced by both the pedagogic discourse and by contextual factors. However, the dominance of the vertical or horizontal logic would vary.

Finally, I have suggested that Bernstein's theory is premised on a separation of space and time that is open to challenge, within the spirit of Bernstein’s own view of his work as work in progress.
Chapter Three:
Practice communities in situated activity theory

The main focus of the previous chapter was Bernstein’s position that the grammar of pedagogic discourse is the primary point of reference for pedagogic practice in institutional contexts. This approach generates an explanation that traces the relay of power and control from the macro to the micro level through the recontextualization of pedagogic discourse and the distribution of symbolic goods.

This chapter considers situated practice as a theoretical approach that makes an inverse argument: that contextualized experience and interaction produce the knowledge that constitutes a practice. It follows that the practitioner’s experience and the experience of others, made available through interaction and locally contextualized mediated acts of meaning making, constitute the main point of reference for practice.

The chapter presents this approach, and then goes on to attempt to resolve the apparent contradiction between these two positions and thus incorporate both into an extended theory of pedagogic practice. To this end, this chapter argues that the main difference between Bernstein’s approach and that of the situated activity theorists could be expressed in terms of Bernstein's theory of vertical and horizontal discourse.

Finally, the chapter considers the implications of a situated activity analysis of pedagogic practice for understanding how space/time and objects are implicated in pedagogic practice.

Post-Vygotskian approaches to understanding pedagogic practice

Bernstein credits Vygotsky as a key theoretical resource for his work (1971 p. 123). But this work has also been recruited by other writers across a range of
epistemological perspectives. Thus it is ironic, but not surprising, that Vygotsky’s work has provided the main theoretical resource for the development of explanations of pedagogic practice very different from that of Bernstein. These include explanations premised on the idea that situated everyday practical activities and interactions are, to a substantial degree, constitutive of practice and of the knowledge that informs practice.

This chapter will present situated activity theory as a post-Vygotskian approach to understanding pedagogic practice (and social practice more generally). It will be argued that this approach privileges construction of meaning through interaction and participation rather than the internalisation of broader structurally derived meanings. The situated activity approach has been selected from an extensive stable of post-Vygotskian approaches because theorists within this camp – such as Lave and Wenger – incorporate a Vygotskian perspective into a broadly sociological approach to social practice (including pedagogic practice) within organisational contexts. This is pertinent to this study’s focus on teachers’ development of modes of pedagogic practice within schools as organisations.

This study is by no means alone in attempting to find a resolution of tensions between Bernstein’s work and that of post-Vygotskian theorists. Daniels (2001), Inghilleri (2002) and others have recently argued that, while there are tensions between these approaches, each offers insights that are not developed in the other. Daniels argues, more specifically, for an incorporation of elements of Bernstein’s theory of pedagogy into an extended post-Vygotskian approach. However, while Daniels builds a strong argument for complementarities between the work of Bernstein and that of the post-Vygotskian theorists, he does not pay as much attention to tensions between the two approaches. Daniels characterizes the differences between the two approaches in terms of absences rather than contradictions. In this view, Bernstein adds a sociological understanding of the penetration of context (specifically a macro-structural context) into the largely psychological post-Vygotskian accounts of teaching and learning as cognitive processes at the micro level. In Daniels’ view, post-Vygotskian work offers to Bernstein’s theory
a model of aspects of the social formation of mind that is underdeveloped in Bernstein’s work (2001 p. 138).

Inghilleri (2002) highlights differences between the approaches of Bernstein and post-Vygotskians in the field of educational scholarship in Britain. She argues that these differences originate in different readings of Vygotsky’s work by Bernstein and James Britton in the seventies. According to Inghilleri, Britton endorsed a ‘personal growth’ model of learning which ‘effectively detached the social from the affective and cognitive domains’ (p. 471) and in doing so, presented learning purely in terms of competence, without reference to performance. Unlike Britton, Bernstein

... sought to relate competence (reattached to performance) within the restraints of power relations and their resulting differential unequal positionings (p. 473).

Inghilleri concludes that recent research by Gee (1999), Wertsch (1998) and others aims to reconnect language, cognition and social context within explanations of cognition in pedagogical contexts, and argues – like Daniels - that much is to be gained from drawing on Bernstein’s work in this project.

From my point of view the most useful starting point for understanding the tensions between the theories of the post-Vygotskians and Bernstein comes from Young (2003). Young aims to define the differences between Durkheim (whose theory of knowledge is foundational to Bernstein’s theory) and Vygotsky’s understandings of the relationship between everyday knowledge and scientific knowledge. Both recognize the systematic nature of integrated, scientific knowledge as compared to the segmental character of everyday knowledge. Both see scientific knowledge as historically and socially constructed. However, Vygotsky sees scientific knowledge as theoretical or abstract, principled knowledge that emerges from engagement with the practical. In this view, everyday knowledge is systematized as scientific knowledge. In contrast, Durkheim sees scientific (or sacred) knowledge as separate in origin from everyday knowledge. It is socially and historically produced within its own sphere, separate from the everyday.
Young’s analysis helps us to recognize a tension between the approaches that are foundational to Bernstein and the situated activity theorists, and it is this tension that must be addressed in any attempt to combine the two approaches. Bernstein’s approach suggests that acquisition of scientific knowledge, or vertical discourses, depends on acquisition of the generative principles that are internal to the discourse. Relating such knowledge to everyday experience may serve as a pedagogic strategy to induct novices to the discourse, but this strategy should lead to and affirm, rather than obscure, the internal grammar of the discourse if acquisition of the discourse is not to be compromised (1999). Ultimately, in Bernstein’s view, acquisition of scientific knowledge depends on a boundary between this knowledge and everyday knowledge.

A Vygotskian view of pedagogy focuses on the connection – rather than the boundary – between the two forms of knowledge. In this approach, theoretical knowledge is seen to be derived from everyday knowledge. Scientific knowledge systems are different from, but rooted in, everyday knowledge. This suggests that acquisition necessarily takes place through contextualized practical engagement with existing systems of integrated scientific knowledge. Young concludes that a curriculum and pedagogy that aims to draw on both these theories must

… take Durkheim’s point that the externality of knowledge is a necessary condition for the creation and acquisition of new knowledge (2003 p. 114).

However such a pedagogy and curriculum must also be informed by Vygotsky’s

… heroic attempt to hold together the processes of learning and the generation of new knowledge which over specialization within the curriculum and within research communities has forced apart (2003 p. 115).

While Bernstein is increasingly being put into conversation with post-Vygotskian theorists as regards pedagogic practice, there are fewer examples of such conversations with regard to school organisation and – more
pertinently – the development of pedagogic practice within the context of the school. Bernstein’s work has been recruited in this domain by Tyler (1988), Maton (2002), Daniels (2001) and others. There is also a growing body of work in this domain that is centred on Vygotskian notions of mediation and zones of proximal development, linked to the concept of communities of practice and constructivist, competence-oriented views of learning. Spillane’s (1999, 2000, 2002) work on curriculum implementation and Lakomski’s (2002) work on distributed practice provide but two examples of influential theorists that have taken up these concepts in relation to school organisation, management and culture. Similarly, the Murphy and Seashore Louis’ 1999 Handbook of Research on Educational Administration includes a chapter by Prawat and Peterson on social constructivist views of learning. The authors draw strongly but not exclusively on Vygotsky to argue that learning is anchored in a social setting and that school leaders should nurture communities of practice within schools. An emphasis on the importance of a constructivist orientation to learning and building communities of practice also appear in other chapters of the Handbook, such as that of Smylie and Hart (1999) on school leadership and that of Seashore Louis, Toole and Hargreaves (1999) on school improvement. This would suggest that, at least in this authoritative review of the field of education administration in America, a post-Vygotskian constructivist approach to learning is taken as a point of departure. Along similar lines, Gee (2000) argues that a particular notion of schools as communities of practice underpins current organisational restructuring and school reform. According to Gee, this view of schools as practice communities is becoming a normative prescript within new capitalism and no longer merely a theoretical resource for analytic description.

Judging by texts currently available in English, Vygotsky (1962, 1978) himself wrote mainly about acquisition (rather than transmission) and the development of cognition in children within pedagogic relations with adults. It is perhaps this focus on acquisition that has enabled scholars who have adopted a situated practice approach to draw on his theory to develop explanations of acquisition of practices by adults in a range of contexts. A
common strand in this work is the quest to provide an adequate explanation for the relation between knowledge, situated interaction and practice.

It is easy to see which elements of Vygotsky’s theory have invited application to these issues. At the heart of Vygotsky’s theory is the concept of a dialectic interaction between human beings and nature, based on Engels and Marx (1978 p. 60). The key moment in the acquisition of higher cognitive skills, as understood by Vygotsky, is the fusion of practical and symbolic engagement with the world, involving active construction of meaning through the use of objects, signs and symbols as tools. He emphasizes the dynamic nature of learning and insists on the need to study learning ‘in the process of change’ and ‘as socially rooted and historically developed activities’ (Vygotsky 1978 p. 57, 65). Bruner summarized this position thus:

Man, if you will, is shaped by the tools and instruments that he comes to use and neither the mind nor the hand alone can amount to much (In foreword to Vygotsky 1962 p. vii).

While learning through activity is internalized as symbol and carried into the next activity, even the adult or expert never operates exclusively on a purely symbolic level:

At the highest levels she appears to have abandoned any reliance upon signs. However, this appearance is only illusory. Development, as often happens, proceeds here not in a circle but in a spiral, passing through the same point at each new revolution while advancing to a higher level (Vygotsky 1978 p. 56).

Thus it is Vygotsky’s focus on development of knowledge through contextualized interaction that anchors post-Vygotskian theorists.

**Situated activity approaches**

Scholars such as Wenger (1998), Lave (1996), Chaiklin (1996) and others have drawn on Vygotsky’s theory to develop an explanation of the construction of knowledge and practice through situated interaction with contextual elements, whether these are symbolic, social or practical. This is a fairly diverse group who differ amongst themselves, but whose explanations have enough in common to be considered as collectively constituting an
‘approach’. Generally, situated activity theorists explain acquisition of a practice in terms of participation or joint engagement in a community of practice, driven by the need for belonging and conformity or a mandate for ‘mutual accountability’ (Wenger 1998 p. 81). This does not mean that individuals do not respond in particular and varied ways to communities of practice, but that their responses must be understood in relation to communities of practice. Situated activity theorists place an emphasis on ‘the lived in world of engagement in everyday activity’ (Lave and Wenger, 1991 p. 47):

We have come to the conclusion ... that there is no such thing as ‘learning’ sui generis, but only changing participation in the culturally designed settings of everyday life. Or, to put it the other way around, participation in everyday life may be thought of as a process of changing understanding in practice, that is, as learning (Lave 1996 p. 6).

Lave and Wenger (1991) and Chaiklin and Lave’s (1996) primary concern is with learning, or acquisition, rather than with teaching, or transmission. The collection edited by Chaiklin and Lave (1996), for example, focuses on the acquisition of a range of practices by adults, from medical practices to craft. Their focus on the relationship between the learner as acquirer of a practice and the context of practice invites the application of their framework to modes of practice acquisition other than formal pedagogic relationships between transmitters and acquirers. In these contexts, acquisition and development of practice is related not to pedagogy but to ‘the social organisation of knowledge, learning and thinking’ (Lave 1982 p. 187).

In their more recent work, Chaiklin and Lave have extended their understanding of context to accommodate the insight that ‘local’ situations are imbricated in broader social contexts, understood here as multiple related contexts:

The next step may be to reformulate the problem of context: Instead of asking, ‘What is the constitutive relationship between persons acting and the contexts with which they act?’ The question becomes, ‘What are the relationships between local practices that contextualize the ways people act together, both in and across contexts?’ (Lave 1996 p. 22).
This attempt to incorporate relations between multiple contexts is not sufficiently developed to connect practices within local contexts to broader social structures. It does, however, signal that in this approach the relation between macro and micro levels of social activity are not necessarily constituted through discourse, as will be discussed in the next section.

**Discourse and situated activity theory**

Lave rejects the idea that prior mental objects, or discourses, are constitutive of practice. In this view, the ‘knowledge how’ of practice is a product of situated interactive activity at the local level. In other words practice (contextualized activity) produces discourse:

Knowledgeability is routinely in a state of change rather than stasis, in the medium of socially, culturally, and historically ongoing systems of activity involving people who are related in multiple and heterogeneous ways, whose social locations, interests, reasons, and subjective possibilities are different, and who improvise struggles in situated ways with each other over the value of particular definitions of the situation, in both immediate and comprehensive terms, and for whom the production of failure is as much part of routine collective activity as the production of ordinary knowledgeability (Lave 1996 p. 17).

Wertsch argues more explicitly that mediational means are constitutive of instructional discourses:

Understanding such discourse is viewed as central to understanding why some forms of instruction are effective and others are not, but research on this issue has so far yielded only partial and often conflicting results. One reason for the conflicting results is the failure to appreciate the power of the mediational means involved. Mediational means are often viewed as simply reflecting underlying psychological and social processes, not as having a central role in shaping discourse (Wertsch 1998 P 119).

Along with the rejection of the idea that discourse is prior to and regulative of practice, goes the rejection of the idea that discourse is the carrier of social relations. For Lave, this does not mean that social relations are irrelevant to practice, only that they enter practice in other ways. Social differences permeate every aspect of situated interaction and they play themselves out in ways that are mutually constitutive and contextually embedded:
Unlike some other traditions inspired by Marxist principles, activity theory emphasizes the non-determinate character of the effects of objective social structures. Differences in the social location of actors are inherent in political economic structures, and elaborated in specific socio-cultural practices... Meaning is not created through individual intentions; it is mutually constituted in relations between activity systems and persons acting, and has a relational character. Context may be seen as the historically constituted concrete relations within and between situations (Lave 1996 p. 18).

Thus Lave argues that broader social structures do impact on situated activity, but not by means of symbolic objects. In response to this position, critics such as Linehan and McCarthy (2000) argue that proponents of activity theory such as Lave and Wenger do not adequately address the meanings that individual actors bring to bear in their interaction with communities of practice. Linehan and McCarthy attempt to move away from an 'either / or' position – the site of meaning is either the mind and its representations or the context – towards a recognition of compatibilities between the two approaches. They develop an analysis that focuses on how social actors, specifically teachers, position themselves on the basis of their own ideas and beliefs in relation to a community of practice on a moment-to-moment basis. In so doing, they develop an account which focuses on a dialectic between individual meanings (interests, purposes and motives) and responsiveness to shared practices and norms that involve both compliance and resistance.

Daniels (1993) provides a critique of the situated activity theorists from a position closer to that of Bernstein. Such a position would not seek a ‘dialectic’ relation between mind (or discourse) and interaction but would rather draw on Bernstein’s sociological understanding of the relay of social relations through language to extend a post-Vygotskian account:

Vygotsky provided an account of cultural transmission, which articulates a concern for the interactional level but remains silent at the institutional/ organisational level (1993 p. 46).

From this point of view, Daniels argues that ‘the activity theorists were trying to explain activity through the analysis of activity’ (p. 49) and that this approach does not take into account the structures of mind which have
emerged as ‘the outcome of the subject’s having assimilated the products of human culture (Bozhovich cited in Daniels p. 49).

In a foreword to a collection of articles on the application of Vygotsky’s work to pedagogy, Bernstein surveys the range of epistemological positions into which Vygotsky’s theory has been recruited, including ethnomethodology and symbolic interactionism. He criticizes these approaches for their neglect of ‘extra contextual sources of power and their discursive regulation,’ the interrelation between levels and the way the specialization of knowledge is constructed. He argues that Vygotsky’s work was essentially ‘about’ language as a cognitive tool, and that this is the very object that is neglected by these approaches:

> Once attention is given to the regulation of the structure of pedagogic discourse, the social relations of its production and the various modes of its contextualisation as a practice, then perhaps we may be a little nearer to understanding the Vygotskian ‘tool’ as a social and historical construction (1993 pp. xix-xx).

In summary, then, situated activity theory argues that meanings are generated through contextually located activity and interaction, in contrast to Bernstein who argues that – in pedagogic institutional contexts – discourse regulates activity and in so doing, produces contexts. An attempt will be made below to develop a position that resolves this tension. First, however, I wish to consider how situated activity theory understands the space/time and object related aspects of social practice.

**Space, time and object related practices in situated activity theory**

Situated activity accounts of practice tend to privilege social interaction as productive of space/time and object related practices. Wenger (1998 pp. 57-62), as one representative of this approach, provides an explanation of the place of culturally produced ‘things’ in social life; he defines ‘things’ as products of social interaction and reifications of meaning.

> They freeze fleeting moments of engagement in practice into monuments, which persist and disappear in their own time. … Properly speaking, the products of reification are not simply concrete, material
objects. Rather, they are reflections of these practices, tokens of vast expanses of human meanings (p. 60).

However, once meanings are reified as form, they... can take on a life of their own, beyond the context of origin. They gain a degree of autonomy from the occasion and purposes of their production. Reification as a constituent of meaning is always incomplete, ongoing, potentially enriching, and potentially misleading. The notion of assigning the status of object to something that really is not an object conveys a sense of mistaken solidity, of projected concreteness. It conveys a sense of useful illusion. The use of the term reification stands both as a tribute to the generative power of the process and as a gentle reminder of its delusory perils (p. 62).

Thus objects are reified products of past practices that are recruited into further practices as signs. This understanding of material objects is reminiscent of that of Latour and Woolgar (1979 p. 68) who follow Bachelard in describing apparatus as 'reified theory and practices'. Daniels argues that this idea of reified meaning ‘sedimented in objects’ is central to the conceptual apparatus of theories of culturally mediated, historically developing practical activity (Daniels 2001 p. 16, 21).

Similarly, Wenger’s view of space, or what he calls ‘the geography of practice’ is that practices ‘produce’ spatial configurations, but do so with or against the grain of already existing spatial configurations emergent from past practices:

   Practice is always located in space and time because it always exists in specific communities and arises out of mutual engagement, which is largely dependent on specific places and times. Yet the relations that constitute practice are primarily defined by learning. As a result, the landscape of practice is an emergent structure in which learning constantly creates localities that reconfigure geography (1998 pp.130-131).

For Wenger, the geography of engagement is about practices necessarily involving connectedness, whether this is face to face or via communications technology. It follows that any one community of practice is necessarily limited in scope since any one human being can only be engaged with a limited number of other human beings within a particular practice. These communities of practice can, in turn, be linked in broader constellations or
networks such as, for example, education systems that link the local to the global (1998 p. 133).

**Conclusion**

The situated activity theorists see contextual elements – especially the interactional aspect but also the space/time and object related aspect – as constitutive of (social) practice and productive of practice knowledge. Bernstein sees these former aspects as regulated by the form of the knowledge base. Bernstein is clearly correct in arguing that what he terms symbolic interactionist approaches do not privilege pedagogic discourse in explaining pedagogic practice. But in Bernstein’s own terms, the grammar of a pedagogic discourse, independent of context, would only be regulative of pedagogic practice when the knowledge that is being pedagogized takes a particular form i.e. where the discourse structure is vertical, as discussed in chapter two. The acquisition of horizontal discourses, on the other hand, is strongly responsive to context, i.e. to interaction within a community of practice (1999, 1996). In fact, Bernstein’s description of the acquisition of horizontal discourses is remarkably similar to a situated activity explanation of the acquisition of practices within a community of practice. In other words, a key difference between Bernstein’s approach and that of the situated activity theorists could be expressed in terms of Bernstein’s premise that pedagogic practice in schools recontextualizes vertical discourses while the situated practice theorists approach social practices in general (including pedagogic practices) as if they follow the logic of the circulation of horizontal discourses.

Another difference between Bernstein’s theory and that of the situated activity theorists is one of focus. Bernstein’s primary focus is on the teacher as transmitter in relation to the broader process of recontextualisation. While various pedagogic modes are produced through the process of recontextualization, the variations are intentional at least in so far as they are ideologically driven at multiple levels within the pedagogic device.
On the other hand, situated activity theorists are interested in the practitioner - in this case the teacher - as ongoing acquirer of a practice. Once the teacher is in service, ongoing development of practice takes place predominantly through interaction within a community of practice at a particular site of practice. The teacher’s practice is still externally framed through the operations of the pedagogic device, but these operations are embedded in the interactions of a community of practice.

Learning viewed as situated activity has as its central defining characteristic a process that we call legitimate peripheral participation. By this we mean to draw attention to the point that learners inevitably participate in communities of practitioners and that mastery of knowledge and practice requires newcomers to move towards full participation in the socio-cultural practices of a community. ‘Legitimate peripheral participation’ provides a way to speak about activities, identities, artefacts, and communities of knowledge and practice. It concerns the process by which newcomers become part of a community of practice. A person’s intentions to learn are engaged and the meaning of the learning is configured through the process of becoming a full participant in a socio-cultural practice. This social process includes, indeed it subsumes, the learning of knowledge skills (Lave and Wenger, 1991, p. 29).

This study is interested in the teacher as simultaneously transmitter and acquirer, simultaneously recontextualizing a discourse and constructing her own practice in relation to a mediating context. This position opens up for further examination the moment of recontextualization of the pedagogic discourse from the various levels of the pedagogic device to the teacher through ongoing practice development within a school. Here the teacher is both a recontextualizer, whose practice is strongly or weakly externally framed, and a member of a community of practice; both a transmitter and an acquirer. As an acquirer, the teacher may be more or less cognitively oriented to the vertical features of the pedagogic discourse she is transmitting. And as a member of a community of practice, the teacher is likely to be exposed to the circulation of practice strategies as models that are to a lesser or greater degree socially approved or practically mandated.

Ensor (1999, 2002) argues that the degree to which teacher practice is regulated by the grammar of the instructional discourse can vary, depending
on whether the novice teacher has gained access to that grammar. This suggests that some teachers might have a much stronger discursive reference point when they engage with communities of practice, than would others. Ensor goes on to suggest that all pedagogic practice necessarily has a tacit component that is contextually generated rather than discursively regulated. Gee (2000) agrees that much of the knowledge in a community of practice is tacit

... embodied in members’ mental, social, and physical co-ordinations with other members and with various tools and technologies.

But goes on to say that it is also

... distributed (spread across various members, their shared socio-technical practices, and their tools and technologies) and dispersed (not all on site but networked across different sites and institutions) (2000 p. 518).

The implication, says Gee, is that practice knowledge is

... not first and foremost in heads, discrete individuals or books but in networks of relationships (2000 p. 519).

Like Linehan and McCarthy (cited above) I will attempt to move away from an ‘either/or’ position towards an account which focuses on a dialectic between discursive regulation and responsiveness to shared, sometimes tacit, distributed and dispersed practices and norms within the school. In short, I will attempt to develop an account that positions different modes of pedagogic practice as contingent upon the play of the vertical and horizontal elements within the process of practice development.

Finally, the two positions discussed here – that discourse regulates practice and that practice generates meaning - both have in common the understanding that space/time and object related practices are regulated by (or reifications of) interaction. In the next chapter I consider a theory that questions this premise.
Chapter Four: Lefebvre’s rhythmanalysis

Common to both approaches to pedagogy reviewed in chapters two and three is a view of the material components of pedagogic practice as produced, regulated by, or expressive of, the social (discursive and interactional) constituents. This chapter will review literature that suggests a different position: that material (space/time and technology related) practices have a specific logic and thereby contribute constitutively to social life and practices and, more specifically, to pedagogic practices. The chapter will focus mainly on the theory of Lefebvre (1971, 1991, 1991b, 1995, 1996, 2001, 2002, 2003, 2004), who provides an elaborate theorisation of space. Lefebvre’s work does not address education or pedagogy, but he does assert that all social activities are constituted both spatially and socially. I use the singular ‘theory’ here, in preference to the plural ‘theories’, to gesture towards the interconnectedness of Lefebvre’s work, particularly the work that is referred to in this chapter, i.e. his theory of everyday life, social space and rhythmanalysis. I would argue that these three areas of his work stand in a (metaphoric) relation of scale to each other. Spatial theory zooms in, as it were, on a particular (spatial) aspect of everyday life, while rhythmanalysis zooms in on a particular (rhythmic) aspect of spatial practice. These nested focal themes can also be tracked back to an earlier encompassing interest in alienation.

A relatively small proportion of Lefebvre’s writing has been translated into English. In spite of this, his work on space, and specifically the text, *The Production of Space* (1991), has been very influential in the English-speaking world and has contributed to the impetus for spatialized accounts within a wide range of intellectual projects. Examples include cultural studies and cultural history (Ross 1988, Morley and Robins 1995), urban studies (Thrift and Williams 1987), industrial development studies (Pratt 1994), critical and human geography (Soja 1989, Thrift 1994), political theory (Harvey 1996), law

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2 It is in fact a little surprising that Lefebvre seldom mentions pedagogy or education, considering that he taught in both schools, or lycées, and universities.

**Locating Lefebvre**

Lefebvre is arguably the strongest single contributor to a growing body of work that adopts a spatial lens in its analysis of social phenomena. Collectively this work has been referred to by Urry (1995), Crang and Thrift (2000) and others as representing a new 'spatial turn' in social theory. Why, and in what sense, is spatial theory 'new'? According to Lefebvre (1991), Soja (1989) and Urry (1995), history and time - rather than space – had been privileged in accounts of social life since the mid nineteenth century. Lefebvre argues that philosophy abandoned space to the mathematicians whose construction of space as 'a mental thing' was adopted by modern epistemology. Soja and Urry are concerned to trace conceptions of space in sociological thought. They agree that Marx offered spatialized accounts of social life, and Soja adds that Lenin, Luxemburg, Bukharin, Trotsky and Bauer were also 'sensitive to geographical issues', but argue that these accounts were undeveloped.

This spatial perspective remained undeveloped in social thought after the late nineteenth century. For the greater part of the twentieth century, argue Soja and Urry, space was constructed as 'a passive container' while time was considered to be the locus of action and change, the 'primary source of emancipatory insights (Soja 1989 p. 4). But neither Lefebvre nor Soja suggests that there were no attempts to theorize space during this time. Instead, Lefebvre argues that:

> … epistemological-philosophical thinking has failed to furnish the basis for a science which has been struggling to emerge for a very long time, as witness an immense accumulation of research and publication (1991 pg 7).

Soja, too, recognizes in the history of social thought 'a hidden narrative' that prefigures contemporary spatialization of social thought. He focuses particularly on the contributions of Gramsci, Foucault, Berger, Mandel and
Berman (1989). Urry adds Durkheim and Simmel to this list. Crang and Thrift (2000) go wider in their edited collection that includes an exploration of spatial strands in the work of Benjamin, Bakhtin, Wittgenstein, Deleuze, de Certeau, Cixous, Lacan, Bourdieu, Ganon, Latour & Serres, Said, Trinh and Virilio. Collectively, this work spans a range of approaches relating to mental, social and physical space with reference to questions on every scale, from macro political economy concerns to micro cultural practices.

For Massey and Soja, the shift heralded by the work of Lefebvre and others is not only about new ways of conceptualising space and time as an object of study but also about a more general re-orienting of all social theory in terms of space and time. Drawing on feminist theory and physics, Massey agrees that space has been assumed to have an essentially static identity while time has been seen as dynamic, the engine of change. She critiques this dualist logic, (Massey 1992) and proposes that space and time should rather be understood as related dimensions of all human experience, each of which is defined by the other i.e. not space versus time but space/time. This conception provides the conceptual terrain for a dynamic, politicized understanding of space/time. More recently, a growing interest in space has led May and Thrift (2001) to warn against allowing a privileging of time to be supplanted by a privileging of space. Again, the challenge is to keep in focus that space and time are inextricably interwoven.

Although Lefebvre is currently best known – at least in the contemporary English speaking world – for his spatial theory, this work represents just one chapter in an intellectual history that spans over sixty years, from the mid nineteen twenties to the late nineteen eighties. During this time he wrote on a range of topics, including logic, rurality and urbanism, globalisation, sociology of everyday life, literature, art and intellectual history. Prior to 1950, much of his work adopted a philosophical approach to the analysis of political and intellectual thought (Elden 2002). His texts on dialectic materialism (1968a [1939]), and on Marxism (1968b [1948]), were widely translated and frequently reprinted. Unfortunately, many of his shorter publications are not available in English, so that those who, like myself, cannot read French must rely on
secondary texts such as that of Shields (1999) and Elden (2002) to provide a broader map of his work. Fortunately the longer texts from this and later periods are available in English.

After 1950 there was a shift in Lefebvre’s work towards analysis and critique of post war society, or modernity, and its expression in everyday life and consumption, as opposed to work place relations and production (1971, 1991b, 1995). The common theme in this work is that of alienation in relation to the increasingly mundane, banal, routine and repetitive nature of everyday experience in modernity (1991b p. 37, pp 59-62). This theme is explored in the two volumes of his *Critique of Everyday Life* first published in 1958 and 1968 and is carried forward in *The Production of Space*, first published in 1971. In this volume Lefebvre argued that abstract space – the particular form of space produced through and dominant in capitalism – is an alienating space.

This study draws on some of the major texts from this period, especially *The Production of Space* (1991) and *Rhythmanalysis: Space, Time and Everyday Life* (Translation by Elden and Moore, 2004). In *The Production of Space*, Lefebvre explicitly acknowledges his engagement with Marx, Hegel and Nietzsche (see for example 1991 p. 24, p. 82, p. 102 and p. 129. See also 2003 p. 42.). But his engagement is always dialectic. As regards a theory of space, specifically, Lefebvre states that these three theorists have nothing in common (1991 p. 22); thus he builds his own theory through bringing their theories (and the theories of others) into dialectical confrontation with each other and with his own concepts.

Notwithstanding Lefebvre’s commitment to a general Marxist theoretical orientation (1991 p. 342), the innovative elements of his work – particularly his theory of space and everyday life - have led to his being described as neo-Marxist and as a precursor to post modernism (see for example Shields 1999). This can be partly explained with reference to Lefebvre’s view of Marx’s thought as itself historically located, subject to development in response to changing historical conditions. This position enables him to focus
on the specificity of everyday life and cultural forms and practices, as will be discussed further below – a focus that lends itself to recruitment within post-modern cultural studies.

**Lefebvre’s method: Structuralism vs. dialectic thought**

A theme throughout Lefebvre’s writing is a rejection of rigid structuralism that takes the structure and logic of language as a methodological model for sociological work (Lefebvre 2003 p. 38). He argues that such work abstracts a logical, rule based system - a metalanguage - from its context. This is appropriate, he argues, for the study of language but not for sociological research. Such an approach glosses over ‘the more violent tragedies of modernity and everyday life’; it hides differences between contexts, for example between the developed and developing worlds:

> In these circumstances, a would be science can teach us nothing about reality – metalanguage cannot be seen as either harmless or innocent! (1971 p. 129)

Lefebvre’s position is not that structuralism’s logic of form is inaccurate, but that it cannot tell the whole story. Forms:

> … are real, but not in the terms of other types of reality; they are projected on the screen of everyday life without which they would have nothing to explore, define and organize; in this ways the various rays constitute a single beam and light up a territory that would otherwise be plunged in darkness. Once again the metaphor expresses too much and not enough (1971 p. 186).

Not only does Lefebvre reject the structuralist and poststructuralist method in general, but he specifically rejects the conceptualization of space found in the work of Foucault, Chomsky, Derrida and others (1991 p. 3-5), of whom he says:

> This school, whose growing renown may have something to do with its growing dogmatism, is forever promoting the basic sophistry whereby the philosophico-epistemological notion of space is fetishized and the mental realm comes to envelop the social and physical ones (1991 p. 5).

The solution, he argues, is to restore the dialectic movement which finds unity through contradiction; ‘By restoring context, the dialectical movement is thus
restored’ and this enables the sociologist to ‘identify contradictions which would be overlooked by the linguist's abstraction and formalisation’ (1971 p. 128).

Lefebvre’s notion of dialectic thought is not synonymous with that of Hegel or Marx, although he draws on both. His notion of the dialectic refers both to bringing together otherwise contradictory and conflictual terms or concepts, and to a mode of linking theory and practice (Kofman & Lebas 1996 p. 10). Thus dialectic thought can be brought to bear on the relation between empirical entities such as spatial and social practices. This is captured in the concluding words of an article in which he reflects on the view from his apartment in Paris:

> Here as elsewhere, opposites find and recognize each other, in a unity both more real and more ideal, more complex than its elements already accounted for (Lefebvre 1996b p. 227).

For Lefebvre a dialectic analysis involves a triadic approach in which the third term is more than just a synthesis of the first and second terms; it is a separate term:

> … dialectical analysis observes or constitutes the relations between three terms, which change according to circumstance: going from conflict to alliance and back again. This is the presence of the world, to the extent that it features relations of past-present-future, or of possible-probable-impossible, or even knowledge-information-manipulation, etc. The analysis does not isolate an object, or a subject, or a relation. It seeks to grasp a moving but determinate complexity (determination not entailing determinism).

> … So-called structural analysis casts light on opposed terms – two by two – in order to study their relations and interactions (thus time and space, signified and signifier etc.) With regard to dialectical analysis, which was for a long time hesitant even after Marx and Hegel, it separates out three terms in interaction: conflicts or alliances. Thus: ‘thesis – antithesis – synthesis’ in Hegel, or in Marx: ‘economic-social-political. Or more recently time-space-energy … triadic analysis distinguishes itself from dual analysis just as much as from banal analysis. It doesn’t lead to a synthesis in accordance with Hegelian schema. Thus the triad ‘time-space-energy’ links three terms that it leaves distinct, without fusing them in a synthesis (which would be the third term) (Lefebvre 2004 p. 12-13).
Context thus restored by dialectical thought can be identified at multiple levels; the everyday is a level of the real, not a product of a real that is ‘somewhere else’, and it is imbued with ideology:

A critical analysis of everyday life will discover ideologies and the understanding of everyday life must include an ideological analysis and, especially, an incessant self-analysis (Lefebvre 1971 p. 27).

Lefebvre’s preference for an analysis that includes the whole social formation that operates at multiple levels, rather than privileging the economic domain, also frames his understanding of consciousness:

A man’s [sic] consciousness is determined by his (social) being. To coin a phrase, it reflects it (1991b p. 92).

And, like all real reflections, it is

... incomplete, mutilated, inverted, distorted and mystified (1991b p. 94).

Elsewhere, Lefebvre switches metaphors to describe consciousness as:

... a kind of membrane between the individual and the social.... Mediating between the individual and the social and within an individual consciousness, between the individual and his own self (2002 p. 62).

Lefebvre’s rejection of structuralism is evident not only in what he says but in how he says it; nothing can be more different from the carefully systematic logic of structuralism – also evident in Bernstein’s work – than Lefebvre’s broadly sweeping, unsystematic, evocative and dynamic prose. Highmore argues that these differences partly account for the delayed and partial receptivity of Anglo-American academia to Lefebvre’s work in the 1970s and 1980s:

... when the heady brew of French structuralist and poststructuralist theory had become a kind of official opposition to purveyors of traditional values. Such waywardly unsystematic and practically political work as Lefebvre’s was left without a platform (Highmore 2002 p. 136).

Lefebvre’s method is to subject relations between the levels and categories that constitute social life to dialectic thought. It is this method that provides the lynchpin for his spatial theory. And it is this method and this theory that
provides a resource for making visible the context of pedagogic practice in this study.

Spatial theory

Lefebvre’s theory of space is represented primarily by *The Production of Space* (1991), which was first published in 1971. This is a complex and monumental work with multiple strands or themes. I do not intend to provide a survey of the whole theory, much of which is not directly applicable to this study. Instead, I will extract key relevant propositions and explicate them in turn.

The two strands in Lefebvre’s work that are of greatest relevance to this study are his assertion that spatial practices (i.e. space/time and objects) and social practices (incorporating discursive and interactive practices) are mutually contingent and his concept of rhythmanalysis. Before examining these strands more fully, I will take a step backwards to contextualize his spatial theory in relation to his earlier theory of everyday life. This serves more than a back grounding purpose. The core concept that I draw from Lefebvre – rhythmanalysis (Lefebvre 1996; 2004) is informed by my reading of Lefebvre’s earlier work on everyday life and spatial practices, which, I will suggest, reverberate in this concept.

Everyday life and specialized activities

Lefebvre argues that Marx’s central, classical analytic categories may no longer be the only, or even the most important, categories to use for an analysis of modernity (Lefebvre 1991 p. 102 – 104). He rejects the notion that the economic sphere is the exclusive site of production for repressive class relations and the determinant of social relations in other spheres:

Marx never considered economics as determinative, or as determinism, but he saw capitalism as a mode of production where economics prevailed, and therefore that it was economics which had to be tackled; nowadays everyday life has taken the place of economics, it is everyday life that prevails as the outcome of a generalized class strategy (economic, political, cultural). It is therefore everyday life that
must be tackled by broadcasting our policy, that of a cultural revolution with economic and political implications (Lefebvre 1971 p. 197).

Lefebvre de-emphasizes the notion of a divide between base and superstructure, which he describes as a ‘dogmatic and schematic simplification of Marxism’ (1991b p. 52), and the economic determination of the social. Instead, he draws on Lenin to say that an analysis of capitalism must go beyond the economic to include the whole social formation. In this analysis, power and control would operate on multiple levels – socially, discursively, and spatially – in the classroom as in the factory.

This reprioritisation of Marx’s analytic categories prepares the way for Lefebvre’s focus on everyday life as a site of alienation. Modern capitalist society, he argues, has drained everyday life of the meaning that potentially saturates small actions. Meaning has been separated out as ‘culture’ (objects for consumption) and advertising, leaving outside of this only the prosaic everyday routine that is increasingly bureaucratized for purposes of consumption. What remains is a bureaucratic society of controlled consumption characterized by the banal and insistent repetition or recurrence.

Everyday life is made of recurrences; gestures of labour and leisure, mechanical movements both human and properly mechanic, hours, days weeks, months, years, linear and cyclical repetitions, natural and rational time (1990 p. 18).

Such a society holds violence in reserve and only makes use of it in emergencies; it relies more on the self-repression inherent in organized everyday life (1971 p. 146).

In these terms everyday life is the site of repression but also the most important site for revolution (Lefebvre 1971); the possibilities for creative alternatives are also to be found in everyday life. This analysis is reminiscent of Foucault (1979). However, Lefebvre accuses Foucault of neglecting to theorize these processes in relation to real space (as opposed to and in relation to metaphorical space), as will be discussed below with regard to spatial metaphors.
Lefebvre’s prioritisation of everyday life is not to be confused with a privileging of everyday knowledge, nor is it a rejection of the idea that specialized practices are regulated by the knowledges on which they are based. Instead, he aims to establish the relationship of specialized knowledges to everyday life. Everyday life is that which is outside, and residual, to:

...superior differentiated and highly specialized activities but it is also the soil from which these specialized activities spring ... Every time a scientist comes up with a formula he is condensing a long experience in which the lowliest assistant and the simplest tool had their part to play. ... Specialized activities (considered as activities, with their ‘products’ or ‘works’) genuinely did develop outside and above the everyday. Only by controlling it through this externality were they able to condense it, to concentrate its meanings and achievements (Lefebvre 1991b p. 86-87).

Lefebvre’s notion of specialized practices is comparable to Bernstein’s notion of vertical discourse, but unlike Bernstein – and like Vygotsky - he sees these practices as having their origin in the everyday (Young 2003). Ultimately all three - Lefebvre, Vygotsky and Bernstein - recognize a distinction between everyday knowledge and a form of knowledge ‘above’ and ‘external to’ the everyday. But Lefebvre insists that it is necessary to analyse life as a totality, including everyday life, specialized activities and the relation between them (1991). In fact, as Highmore comments in relation to Lefebvre’s work, part of the political import of the transformation of everyday life lies in the fact that all activities meet in, and are encompassed by, everyday life:

By stressing the interrelatedness of all these social realms from the point of view of everyday life, Lefebvre also points out the limitations of transforming any one particular sphere in isolation (p.129).

In a comment addressed to an imagined philosophy teacher, Lefebvre summarizes a position very like that arrived at towards the end of the previous chapter, i.e. that a specialized activity such as teaching philosophy is a hybrid activity, simultaneously regulated by the specialized discourse that is being transmitted and embedded in a particular context:

And now, my dear philosopher, allow me to inform you that your activity - teaching philosophy – is both everyday and non-everyday. In so far as it is an exceptional activity, a mediation, a journey into the purely abstract and conceptual, philosophy is constructed above the everyday, even when it meditates on life and the concrete. In so far as
it is a social activity, integrated within structured groups, with their models, their norms and their social roles, such as the philosophy lecture, the lycée, the town, the university, it enters into the everyday (Lefebvre 2002 p. 56).

Three spatial fields

In *The Production of Space* (1991) Lefebvre sets out to construct a theoretical unity between three spatial ‘fields’ - mental space (logico-mathematical categories), natural space (the space of nature and of practico-sensory activity) and socially produced social space (1991 pg 11). Lefebvre aims to conceptualize the interrelatedness of, and also to be able to distinguish between, mental, physical and social space (1991 pg 27).

As has already been mentioned, Lefebvre reintegrates space and time, rejecting their severance in social theory. But while space and time are always connected, the form of the connection varies and defines space/time (i.e. historical) epochs. An integrated view of space/time brings into focus the spatiality of action, as movement, as well as the historicity of the material form and organisation of social space.

Social space

This study is primarily concerned with social space (rather than natural or mental space) – and more specifically with one aspect of the practices that produce social space, i.e. rhythms of movement. The term ‘social space’ theoretically reconnects the material and the immaterial, the subject and the object that were cut asunder in Western philosophy by Descartes. This unification is central to Lefebvre’s project (1991 p. 406) and it is achieved through recognition of the body as both subject and object.

Theoretical thought, carrying reflection on the subject and the object beyond the old concepts, has re-embraced the body along with space, in space, and as the generator (or producer) of space (Lefebvre 1991 p. 407).

A central proposition of *The Production of Space* is the statement: ‘(Social) space is a (social) product’ (1991 p. 26). The production of social space can be conceptualized in terms of three ‘moments’: spatial practices,
representations of space and representational space. Spatial practices refer to perceptions and routine (bodily) use of space, such as daily patterns of movement:

The spatial practice of a society secretes that society’s space; it propounds and presupposes it, in a dialectical interaction; it produces it slowly and surely as it masters and appropriates it (Lefebvre 1991 p. 38).

Representations of space refer to (mental) conceptions or codifications of space such as maps and plans:

This is the dominant space in any society (or mode of production). Conceptions of space tend, with certain exceptions … towards a system of verbal (and therefore intellectually worked out) signs (Lefebvre 1991 p. 39).

Representational space refers to the (culturally) lived meanings of space incorporating images, memories and symbols:

This is the dominated – and hence passively experienced – space which the imagination seeks to change and appropriate. It overlays physical space, making symbolic use of its objects. Thus representational spaces may be said, though again with certain exceptions, to tend towards more or less coherent systems of non-verbal symbols and signs (Lefebvre 1991 p. 39).

Social space is a product that is simultaneously material, social (incorporating social relations) and discursive (able to be read). Lefebvre sees social space not as 'a thing but rather a set of relations between things' (1991 p. 83). It is … neither a 'subject' nor an 'object' but social reality, that is to say a set of relations and forms (Lefebvre 1991 p. 116).

The understanding that social space is a social product has four implications:

The first implication is that (physical) natural space is disappearing (Lefebvre 1991 p. 30).

A second implication is that every society – and hence every mode of production with its sub-variants … produces a space, its own space (Lefebvre 1991 p. 31).

[The third implication is that] if space is a product our knowledge of it must be expected to reproduce and expound the process of production (Lefebvre 1991 p. 36).

And finally
… if space is produced, if there is a productive process, then we are dealing with history (Lefebvre 1991 p. 46).

Any real social change, any revolution, is only complete if it has changed space:

‘Change life! Change society!’ These precepts mean nothing without the production of an appropriate space (Lefebvre 1991 p. 59).

**Illusions of space**

If social space is socially produced, and if social space and social practices are mutually constitutive, why has social theory not recognized this? Why, to take salient examples, was this not evident to Basil Bernstein or to Chaiklin and Lave? Lefebvre’s answer is that social theorists have been subject to a double illusion: the illusion of transparency and the realist illusion.

The illusion of transparency is the illusion that

… design serves as mediator between mental activity (invention) and social activity (realization); and it is deployed in space. The illusion of transparency goes hand in hand with a view of space as innocent, as free of traps and secret places. … Hence a rough coincidence is assumed to exist between social space on the one hand and mental space – the (topological) space of thought and utterances – on the other (Lefebvre 1991 p. 29).

The realist illusion is the illusion

… of natural simplicity … the mistaken belief that ‘things’ have more of an existence than the ‘subject’, his thoughts and his desires. To reject this illusion thus implies an adherence to ‘pure’ thought, to Mind or Desire. Which amounts to abandoning the realist illusion only to fall back into the embrace of the illusion of transparency … Each illusion embodies and nourishes the other (Lefebvre 1991 p. 29-30).

In other words, theorists either see space as completely plastic or completely obdurate and impervious to social action. In Lefebvre’s terms, Bernstein and also Lave and Wenger arguably fall prey to the first illusion.

**The relation between place and space**

Social (or produced) space can be thought of as physical/ corporeal space that is reshaped, codified, used or imagined. However, the intervention of
technology increasingly disarticulates space from the scale, proportions and reach of the human body. Giddens' (1984) work on space/time compression provides a pointer to this decorporealized understanding of social space. Subsequent writers such as Castells (1996) and Macgregor Wise (1997) have developed an understanding of social space that is no longer shaped to the constraints of the human body; social space that is characterized by flows and networks. Whereas corporeal space is conceived of as a static landscape of connected corporeal places, the space of flows is more appropriately conceived of as a network of intersecting nodes. These are complementary rather than alternative conceptions of social space. As Lefebvre puts it:

> We are confronted not by one social space but by many - indeed by an unlimited multiplicity or an uncountable set of social spaces, which we refer to generically as 'social space'. No space disappears in the course of growth and development: the worldwide does not abolish the local.... Social spaces interpenetrate one another and/or superimpose themselves upon one another (Lefebvre 1991 p. 86).

Although social space as understood in this study is in fact a composite of layered and scaled social spaces, it is always in some sense about geography, about real places as well as the relationships between or flows across places, shaped in some way by human intervention, use or imagination.

In addition to the distinction between space as relationships between and movement across places, Lefebvre also draws a distinction between conceptual categories of space, or the type of space produced in a particular historical epoch, and the embodiment of that space in a particular place. In this sense an airport, for example, is an embodiment of abstract space that displaces both nature and social difference.

**Space as metaphor**

In spite of the breadth of theoretical work that it informs, Lefebvre's spatial theory starts from a very different set of premises from the work of many other social theorists associated with the notion of space. He distances himself from much of this work by critiquing understandings of social space that generalize
the concept of mental space. He argues that the notion of space as a 'mental place or thing' has been inherited from mathematics and generalized by philosophers and epistemologists. Pointing to the work of Foucault, Chomsky, J M Rey, Kristeva, Derrida and Barthes, Lefebvre goes on to say that these authors neglect to take into account the interrelatedness of mental, physical and social space. Instead, they fetishize the epistemological notion of space in such a way that the mental realm comes to envelop the social and physical ones (Lefebvre 1991 pg 5):

We are forever hearing about the space of this and/or that: about literary space, ideological spaces, the space of the dream, psychoanalytic topologies, and so forth. Conspicuous by its absence from supposedly fundamental epistemological studies is not only the idea of 'man' but also that of space - the fact that 'space' is mentioned on every page notwithstanding.

...The quasi-logical presupposition of an identity between mental space (the space of the philosophers and epistemologists) and real space creates an abyss between the mental sphere on one side and the physical and social spheres on the other (Lefebvre 1991 Pg 3).

In the three decades since Lefebvre wrote *The Production of Space* there has been a burgeoning of theoretical work which foregrounds what Lefebvre calls 'mental space'. Silber (1995) suggests that the characteristic feature of this work is not its general reference to mental (abstract logico-mathematical) space but rather the specific use of space as metaphor. Such spatial metaphors are given theoretical weight and in some cases - for example in the work of Bourdieu (1989) and Harrison White (1992) - the spatial metaphor is so elaborate that it might more accurately be called an extended analogy. Silber argues that the theoretical weight given to spatial metaphors has become a feature of contemporary sociology. Such metaphors are compatible with the search for a new relational analytic language better attuned to new space/time relations within a global society, better able to evoke the contextual underpinnings of social practices and embodied action and better able to synthesize agency and structure.

Silber’s key point is that the theoretical use of spatial metaphors should be distinguished from the substantive study of spatial aspects of social life. He
points to the danger of collapsing metaphorical and physical space. The recruitment of spatial metaphors necessarily depends on the mapping of the object of comparison onto a partial view of particular features of space, and on the stereotyping of those features as stable and inert references for comparison. On the other hand, an analysis of real space must address the variability, instability and complexity of space. As message carriers, spatial metaphors both enable and constrain the communication of a particular message, but they do not and cannot ground the validity of that message in real space.

Silber's critique resonates with Lefebvre's argument that the conflation of metaphorical and physical space is likely to result from the absence of a unitary theory of space that explains both the interrelatedness of, and the differences between, mental, physical and social space.

In the field of education something of a discussion of spatial metaphors has recently emerged. Lefebvre and Silber's concern with the importance of retaining a distinction, and understanding the relation, between real space and metaphorical space provides a useful critical vantage point in relation to this work. This can be illustrated with reference to the recruitment of spatial metaphors by Schutz (1997), Edwards and Usher (1997, 2000) and Popkewitz (1998), below.

Schutz (1997) shows how spatial metaphors can be used in very different but equally powerful ways in analyses of educational issues, by comparing how spatial metaphors are used to 'picture' resistance in the work of Foucault, Giroux, and Hannah Arendt: Foucault represents normalized society as a cage of the self, a state generated social grid that should be destroyed or 'unmapped'. Giroux represents normative society as an oppressive configuration that must be reconfigured or remapped. Arendt represents normalising totalitarianism as the destruction of space, the homogenisation of identity through denial of a place where the individual can stand and from which the individual can relate to others. Thus what is needed, according to Arendt, is the creation of (public) space. By means of this comparison, Schutz
argues that spatial metaphors are neither theoretically transparent nor innocent. Spatial metaphors can carry multiple contradictory meanings, but, argues Schutz, particular spatial metaphors can also limit and constrain analysis.

Edwards and Usher (1997, 2000) and Usher (2002) also place emphasis on the importance of spatial metaphors in education. They argue, usefully, that globalisation is affecting education both through the reconfiguration of real space and through the effects of associated spatial metaphors. Unfortunately, spatial practices and spatial metaphors are run together so tightly in Edwards and Usher’s work that they run foul of Lefebvre and Silber’s warning that the operation of each can only be understood if it’s difference from, and relation to, the other is kept in focus.

Another education writer who leans heavily on spatial metaphor is Popkewitz whose book – *Struggling for the Soul* (1998) - is an interesting example of the way in which spatial metaphor can completely subsume real geographical space. A central concern of this book is differentiation between rural and urban teachers and learners. While the categories ‘rural’ and ‘urban’ have a spatial reference, Popkewitz defines these terms - and the associated practices – in exclusively discursive terms:

...my theoretical interest is to explore how the discursive practices produce the urbanness/ ruralness of the child. (Popkewitz 1998 p. 3)

Popkewitz proceeds to use the term ‘space’ repeatedly to refer exclusively to discursive, or metaphorical, spaces. This project – and also this method – is not only legitimate but also productive; urban and rural identities are indeed at least partly discursively constructed. But when Popkewitz discards the materiality of spatial categories, he also discards the tools required to explain the relevance of the geographic terms and relations that nevertheless enter his account through empirical description. Thus he refers to the margins of the cities, the organisation of school districts, urban blight, logistical problems, crowded classrooms and teachers who ‘simply did not have a room of their own’ (p. 15) to mention just the few terms that emerge from reading only six pages. An approach that completely subsumes the material and spatial into
the discursive has no purchase on the connections between the spatial and
the discursive other than to assume that the spatial is unproblematically
produced by and expressive of the discursive. In this case, the use of space
as metaphor has the effect of emptying real space out of the account.

**Scale**

Some of the work referred to thus far in this chapter selects the vantage point
of a single scale. Increasingly, though, (for example in the work of Edwards
& Birgin 2000), writers who adopt a spatial lens are exploiting its usefulness
for examining relations between social practices at different levels, or scales.
Yet it is only recently that the interplay and interrelatedness of different scales
has become overt in work concerned with space. Castells' (1996) three
volume analysis of the information society adopts a multi scale approach in its
concern with the interrelatedness of the global and the local, unlike his earlier
work which tended to keep its focus at a regional scale.

The notion of scale is present but largely implicit in Lefebvre’s writing on
space. In his earlier work on everyday life (2002, 2004 p. 82-83), Lefebvre
introduces the notion of ‘level’ in order to make the argument, contra
structuralism, that everyday life is a level of the real, not a product of a real
that is ‘somewhere else’. Human beings are:

> … situated in a series of enveloping levels each of which implies the
> others, and the sequence of which accounts for social practice
> (Lefebvre 1991 p. 294).

Starting with Lefebvre’s theory of social space, Smith (1993) develops the
concept of scale. In Smith’s terms, scale is socially produced within an
essentially political process:

Scale demarcates the sites of social contest, the objects as well as the
resolution of contest. Viewed this way, the production of scale can
begin to provide the language that makes possible a more substantive
and tangible spatialized politics. ‘The orderliness of respectability’, says
Iris Young, (1990 pg 136) ‘means things are under control, everything
in its place, not crossing the borders.’ It is geographical scale that
defines the boundaries and bounds the identities around which control
is exerted and contested (1993 pg 101).
In a discussion of the usefulness of the concept of scale for understanding the economic system, Castells (1977) has made the point that particular processes are most clearly evident at particular scales. Thus consumption is most clearly evident at the scale of the city while production is most clearly evident at the scale of the region.

With regard to education, Robertson and Dale (2003) have argued that an understanding of the contingency of the scalar configuration of education systems is crucial to analyses of changing global forms of education governance and delivery (See also Lawn 2001). Focusing an analysis at a particular scale brings particular relationships and processes into view. However, each set of processes and relationships are produced at multiple scales. While one scale may usefully be foregrounded, the interrelatedness of social and spatial practices at various scales should always be taken into account, as Smith (1993) has argued. For example, teaching and learning practices may most usefully be studied at the level of face-to-face interaction within classrooms and institutions, but these processes are embedded in broader processes such as school management at an institutional scale and the production of curricular texts and policies at a much wider scale. This position suggests that it is not enough to see classroom practices as the end product of a set of processes (or message systems) that begin at other levels, as Bernstein's recontextualization metaphor would imply. Nor is it useful to see such processes as contained within the walls of institutions, as practice community analyses sometimes imply. Instead, what is required is an examination of the interaction between these message systems and the specificities of the contexts into which they are projected.

**Space, objects and technology**

For Lefebvre (1991), the conceptual distinction between material space and material objects, or things, is ambiguous. In some ways spaces, specifically social spaces, are like things. Social spaces, like objects, are produced and can be commodified; as commodities, social spaces – like objects - are founded on social relationships of exploitation and domination.
Some spaces are not just object-like, they are also machine-like. In so far as a machine is something that ‘draws energy from a natural source and uses it to perform a sequence of productive tasks’ the town, with its systems of ‘sewers, water supply, lighting, transportation, energy delivery (or flow), information channels, and so forth’, is ‘a vast machine, an automaton, capturing natural energies and consuming them productively’ (Lefebvre 1991 p. 344-345).

Similarly, objects are, in some senses, space-like. Their surfaces are spaces and some objects – like huts – can engender spaces (Lefebvre 1991 p. 81-83).

But in other ways spaces are very unlike things. A space can contain things and is ‘rather a set of relations between things’ (Lefebvre 1991 p 83). Spaces … interpenetrate one another and/or superimpose themselves upon one another. They are not things, which have mutually limiting boundaries and which collide because of their contours or as a result of inertia (Lefebvre 1991 p. 86-87).

Social space embraces

… individual entities and peculiarities, relatively fixed points, movements, and flows, and waves – some interpenetrating others in conflict, and so on (1991 p. 88).

An interest in objects and technology runs through Lefebvre’s work, but this relates mainly to objects as commodities and signs (2003 p. 91) and ways in which technology contributes to alienation in everyday life. He does not focus on the use of technology within social practice, as he does on the use of space, at least in the work that is available in English. Although he does not address this question elaborately, he does frame it as a key question for understanding the present epoch:

How can we avoid concluding that the choice is a false one: either modernity or postmodernity? Posed this way, the question misses the essential point: technological modernism, its reach, its capacity to act in the everyday. And the related problem, at once theoretical and political, of control over technology. Meanwhile, the everyday continues (Lefebvre 2003 p. 95).
Within this frame, it will be necessary to draw on other theoretical resources in order to conceptualize objects as tools.

Heidegger is such a resource, and one whom Lefebvre credited as one of the first to correctly understand the relationship between technology and social relations (Lefebvre 2003 p. 49). In *The Question Concerning Technology*, Heidegger (1977) refers to the ambiguous essence of technology i.e. it has the potential to be used to order matter and the world in creative activities, but it also has the potential to order (or, to use his word, ‘enframe’) the consciousness of those who use it. Heidegger’s focus is less on how technology shapes practices or actions than it is on how technology shapes our ways of knowing and being. For Heidegger, ‘Our age is not a technological age because it is the age of machines; it is the age of machines because it is the technological age’ (1968 p. 24). Technology enframes human consciousness by inviting a technological way of being that perceives everything (including people) as resources or raw materials rather than as beings, as means rather than ends (Heidegger, 1977; Botha 2003, Dreyfus & Spinosa 2003). However, once we recognize technicity as a danger, we are free of it, able to see it for what it is - as a historically situated understanding of the world – and able to live with and use technology without being enframed by it. In this way we reassert integrated (though not singular) identities grounded in local practices that are creative ends rather than instrumental means, such as practices associated with family, traditions or religion.

This reading suggests that the social (or human) and the technical are regarded as mutually constitutive in Heidegger’s work. It contests the view of theorists such as Feenberg (2001) who argue that, for Heidegger, we are more shaped by than shaping of technology.

In the context of this study, the same question will be asked with regard to the particular configuration of tools, or technologies, recruited in pedagogic practice as is asked about space i.e. are tools used to create and order or do
they order those who use them? In other words, how are they implicated in the constitution of pedagogic practice?

Arguments for technological determinism, or instrumentalist positions, regarding the relation between technology and social practice, are not well represented in literature that explicitly theorizes the ways in which technology is implicated in social practice. Theorists who do adopt these positions, such as White (1978), are generally those who were writing some decades back. However, as Bruce (1996) points out, determinist and instrumentalist positions are still commonly assumed (rather than argued) in literature that does not explicitly address this theoretical question (See for example Jackson & McDowell 2000; Comford 2000, Agre 2000; Barnett, Parry and Coate 2001 and Stivers 1999, all of whom write on educational issues from what may arguably be described as technological determinist or instrumentalist approaches).

Button (1993) argues that not two but three approaches have emerged to support a different position: that technology is an extension of social practice. He refers to these three approaches as the social shaping of technology, the social production of technology and the social construction of technology. The first privileges social interaction in relation to technology, the second privileges the materiality of technology and the third privileges discourse, or the ‘readability’ of technology. Thus just as practice generally can be approached from the perspective of the privileging of discourse, interaction or the material world, so technology can be understood differently from each of these perspectives.

Yet, in the spirit of both Heidegger and Lefebvre, this question will not be posed here as an either/or question. Instead, my purpose will be to explore the relationships and contradictions between the ways objects (like spaces) regulate and are regulated by social meanings and interactions in pedagogic practice. Through this dialectic approach, I hope to circumvent the debate between technical and social determinisms about the privileging of terms (See for example White 1978, Mackenzie & Wajcman 1984; Button 1993; Hutchby
2001) and at the same time avoid dissolving the boundary between the material and the social, as Latour does in his later work (1993).³

Latour’s earlier work, specifically Science in Action (1987), provides an analysis that is very compatible with the theoretical resources that I have reviewed in this chapter. What is of particular interest in this work is the way in which Latour’s method of ‘following’ scientists reveals how spatial and object related practices are intermeshed with each other, and with discursive and interactive practices in knowledge production activities in laboratories. As far as objects specifically are concerned, Latour’s work shows how both practices and the knowledges on which they are based are inscribed in the objects, technologies and apparatus that are recruited as ‘reified theory and practices’ (Latour and Woolgar 1979 p. 68). Wise (1997 p. 190) similarly argues for the position that technology and society ‘intertwine, interact and are mutually constitutive’ (p. 190).

The argument that the social and material aspects of practice are mutually constitutive represents an emerging consensus in social studies of science and technology, as is agreed in a recent debate between Hutchby (2001, 2003) and Rappert (2003). What remains at issue is the adequacy of particular conceptual frameworks for describing more elaborately these two aspects of technology as well as the relation between them. To this end, Hutchby (2001) proposes the notion of affordances (originally coined by Gibson 1977) as a concept that enables us to grasp the ways in which particular technologies enable and constrain particular forms of practice and to recognize the contextual and interpretive specificities of the use and meaning of technologies. Rappert (2003) rejects the adequacy of this concept for its analytic task; he argues that the concept closes off questions about the broader frame of meanings within which affordances are defined, thus offering as an explanation that which should be

³ In Latour’s later work and that of those who adopted Actor-Network Theory, however, the dissolution of the boundary between the social and the material may have enabled theorists to recognize how each of these are constructed (and mutually constructing) within ‘networks’ of practice, but it disabled their ability to see what existed before and outside of a particular network (other than other networks), and how that which was before and outside related to the network (See for example Law 2000).
explained. In response, Hutchby (2003) reasserts the utility of the concept for describing the ways in which technologies are implicated in particular practices, while accepting that the concept may not elucidate broader theoretical questions about the relation between representations and uses of technology.

Lawn and Grosvenor (1993) do not use the term affordances, but they nevertheless show how technology – or a network of technologies – offers both affordances and constraints to pedagogic practice. They examine objects as sedimentations of past pedagogic practices and argue that particular mundane technologies such as pencils should not be seen as isolated objects but as part of a systemic technological device. The degree to which technological systems are constitutive of pedagogic practice has to do partly with their obduracy, resulting from their complex infra-structural underpinnings. The ‘ubiquitous technologies of schooling’ are

... the very essence of schoolwork, objects which circulate constantly and are too commonplace to mention: Pencils, scissors, exercise books, rulers, compasses, rubbers, pencil sharpeners, text books, ink bottles and felt pens ... Combining the blackboard, the pencil, and the copybook into an effective method of teaching, especially of the teaching of writing, was a ‘device’ or system of related technologies which has continued in modified form ever since. But pencils aren’t a simple technology. To achieve an effective point on paper, major problems had to be overcome. Turning that ‘relatively scarce, brittle and dirty substance’ into a reliable, strong reusable and cheap tool for schools had taken manufacturers into complex engineering, raw material and marketing problems. By 1910, more than twenty million pencils were being sold each year, mostly to schoolchildren in the USA. Its school infrastructure – as engineers would say, allowing it to function - included paper, pencil sharpeners, erasers and smooth desk surfaces. By achieving a good design and combined with an effective infrastructure, the pencil had become a technology that had been rendered almost invisible (Lawn and Grosvenor 1993 p. 124).

This section has made an argument that the material – specifically technological – aspects of practice are both constituted by and constitutive of social practice. It follows that changing a practice necessarily involves changing all three components of practice: the discourse or underpinning knowledge, the social relations and interactions and the material aspects (space/time and technology use) that constitute the practice. Particular knowledges and social relations underpinning practices may initially generate
the tools of that practice, but once particular tools and configurations of technology are in place, they offer affordances that invite practitioners to conform to established strategies and constrain the introduction of different strategies. This applies not only to single objects, such as the pencil, but to combinations or systems of objects, such as pencils, notebooks, blackboards and chalk. Such objects are connected in patterned and routine ways in activities. They are connected not only to each other, but also to the human body as it moves through space and time in patterned, routine ways. In this way the mutually contingent relationship that Lefebvre describes with regard to spatial practices in relation to social and discursive components of practices also applies to technology use. It is these connections between the body and tools in space and time that is captured by Lefebvre’s concept of rhythmanalysis.

Rhythms and habits

Just as Lefebvre’s theory of the everyday engendered a theory of space, so both these theories engendered his ‘rhythmanalysis’. Within Lefebvre’s triad of spatial practices, representational space and representations of space, rhythmanalysis extends and elaborates the notion of spatial practices. This does not mean that these three sets of practices are separate, or that spatial rhythms are unrelated to the organisation and imagination of space. The point is rather that rhythmanalysis is primarily concerned with patterns of activity and movement, and with the body in space (Lefebvre 1991 p.205, 405).

Rhythmanalysis brings together the conceptual propositions reviewed above, including the mutual contingency of the spatial and the social, the interconnectedness of space and time, the significance of levels (or scale), and the relation of place to space within an analysis of the everyday. It ‘deepens the study of everyday life’ (Lefebvre 2004 p.73).

The concept of rhythmanalysis is referred to in *The Production of Space* (first published in 1971) and in two articles that first appeared in 1986, reproduced in the collection *Writings on Cities* (1996). However, Lefebvre only developed

The study of rhythms is a method rather than an end in itself. It is a mode of analysis of states, activities and ‘things’ (including towns, capitalism, commodities, institutions, music, suffering, pathological states, work, tourism, patriarchy and resistance to it, training or learning) on the premise that such phenomena are constituted in part as rhythms. This analysis is the opposite of reification: it positions that which is analysed in relation to its constitutive contexts and activities, its ‘presence’ (Lefebvre 2004 p.23). Rhythmanalysis does not abstract, it does not ‘… imprison itself in the ideology of the thing.’ Instead, it

... integrates these things – this wall, this table, these trees – in a dramatic becoming, in an ensemble full of meaning, transforming them no longer into diverse things but presence (Lefebvre 2004 p.23).

Rhythmanalysis is Lefebvre’s final contribution to the project of restoring context and the dialectical movement to the analysis of social phenomena.

Lefebvre formulates a number of definitions of rhythm (Lefebvre 2004 p.6, 15, 77) as a premise for understanding rhythm:

Rhythms imply repetitions and can be defined as movements and differences within repetition. However, there are two types of repetition: cyclical repetition – linear repetition (Lefebvre 2004 p. 90. See also p.6, 73, 79 and 1996 p. 230).

However, rhythms are not only constitutive of overtly repetitive activities; they are constitutive of all activities:

Everywhere where there is interaction between a place, a time and an expenditure of energy, there is rhythm (Lefebvre 2004 p.15).

Rhythms relate time, space and activity (Lefebvre 1996 p. 230). This relating, integrating function is founded in the actor’s perception of and response to her environment, and her orientation towards co-ordinating her activities with that environment:

It is in the psychological, social, organic unity of the ‘perceiver’ who is oriented towards the perceived, which is to say towards objects,
towards surroundings and towards other people, that the rhythms that compose this unity are given (Lefebvre 2004, p. 77).

This co-ordinating function of rhythms is also highlighted by MacGregor Wise (1997; 2000), who draws on Lefebvre and Deleuze to focus on the relation between rhythm and habit, and on the ways in which rhythms and habits remember, bodily and cognitively, and ‘hold together’ the discursive, interactional, spatial and technological components of practices:

Cultures are held together by their rhythms, the collection of resonances, the aggregate of meanings, texts, and practices that they make resonate to their particular rhythm or frequency. But what force maintains the rhythms, the articulations? Habit, the cultural covalent bond, the resonance over difference, the rituals, practices, ways of thought and dress that accompany people as they move to new lands, worlds, territories (Wise 2000 p. 306).

Rhythms are always expressed through the body:

At no moment have the analysis of rhythms and the rhythmanalysis project lost sight of the body. Not the anatomical or functional body, but the body as polyrhythmic and eurhythmic (in the so-called normal state). As such, the living body has (in general) always been present: a constant reference. The theory of rhythms is founded on the experience and knowledge [connaissance] of the body; the concepts derive from this consciousness and this knowledge, simultaneously banal and full of surprises, of the unknown and the misunderstood (Lefebvre 2004 p. 67. See also p. 81).

In social practice, daily rhythms are overlaid by longer rhythmic cycles and individual, or private, rhythms ‘of the self’ articulate and are entangled with collective rhythms ‘of the other’. They ‘permeate practice and are permeated by it’ (1996 p. 230; See also 1996 p. 236). Thus:

What we live are rhythms – rhythms experienced subjectively. … A rhythm invests places, but is not itself a place; it is not a thing, nor an aggregation of things, nor yet a simple flow. It embodies its own law, its own regularity, which it derives from space – from its own space – and from a relationship between space and time. Every rhythm possesses and occupies a spatio-temporal reality which is known by our science and mastered as far as its physical aspect (wave motion) is concerned, but which is misapprehended from the point of view of living beings, organisms, bodies and social practice. Yet social practice is made up of rhythms – daily, monthly, yearly, and so on (Lefebvre 1991 p. 206).
As contextual, habituated collective activity, rhythms hold the potential for resistance to ‘official’ control of space and to the imposed, centralized rhythms of ‘the other’ (1996 pp. 237-238).

In summary, Lefebvre’s rhythmanalysis brings into focus two aspects of social practice. The first is the co-ordination of the practice of the individual with her environment, including the rhythms of others and the affordances of technologies and other material and social elements within that environment. This is captured in the founding of rhythms in the actor’s perception of the environment. The second is the tendency for practice to habituate, through repetition, these co-ordinations. These two aspects of pedagogic practice will be taken up in the analysis for this study, which incorporates a consideration of pedagogic practice as partly rhythmically constituted.

In a chapter entitled ‘Dressage’ in Rhythmanalysis Lefebvre specifically addresses education as a rhythmic activity. In this chapter and other dispersed comments, he differentiates between training (or dressage) that is constituted primarily or exclusively as disciplining of the body, and education, which also involves habit and rhythm, but in which such rhythms are adapted to intellectual purposes:

One can and one must distinguish between education, learning and dressage or training [i.e. dressage]... Dressage therefore has its rhythms: breeders know them. Learning has its own, which educators know. Training also has its rhythms, which accompany those of dancers and tamers [dresseurs]. ... Dressage puts into place an automatism of repetitions. But the circumstances are never exactly the same, identical. There are changes, be they only by the hour or the season, the climate, light, etc. Dressage fills the place of the unforeseen, of the initiative of living beings. Thus function the ways of breaking in humans. ... The resumption of the cycle depends less on a sign or a signal than on a general organisation of time. Therefore of society, of culture (Lefebvre 2004 p. 39-40).

At the other end of the spectrum from corporeal training, or dressage, is intellectual activity, which (unlike corporeal training) refers to a supervening discourse:

With regard to intellectual concentration and the activities with which it is bound up (reading, writing, analysis), they also have their own
rhythm, created by habit, which is to say by a more or less harmonious compromise between the repetitive, the cyclical and that which supervenes them (Lefebvre 2004 p. 75).

But the repetitive rhythm of dressage forms the basis of institutions, such as armies, and religious and educational establishments. In such institutions, dressage is a convenient structuring and disciplinary device:

Space and time thus laid out make room for humans, for education and initiative, for liberty. A little room. More of an illusion: dressage does not disappear. It determines the majority of rhythms (Lefebvre 2004 p. 40).

Spatial theory and education

Thus far, this chapter has focused on Lefebvre’s spatial theory in general, rather than on the recruitment by others of this theory into explanations of educational processes, specifically pedagogy. This section will review ways in which spatial issues have been taken up in education literature.

One of the strongest spatial themes in education has related to the distinction between schools in different areas, particularly urban and rural areas. (See for example Redfield 1960; Grace 1984a, 1984b and 1984c; Boyd 1977; Field 1977; Raynor & Harden 1973; Brooke 1992; Edwards and Tisdell 1991). In South Africa, where apartheid formally yoked racial and spatial differentiations, a small but important body of research relating to education in rural areas emerged in the eighties and nineties (See for example Christie and Gaganakis 1989; Christie & Gordon 1992; Graaff 1989; Graaff and Gordon 1992; Nasson 1988, 1990; and De Clercq 1984, Jacklin 1991). However, most of this work was premised on an understanding of spatial differences as an expression of social, especially class, differences; the category of space was not theorized in its own right.

Only in the last decade has a growing trickle of work begun to emerge with a specific focus on the spatiality of educational (specifically school) processes. The range of aspects of education covered by this work collectively suggests that space, like for example history, is on its way to becoming an established lens through which educational processes can be viewed. (See for example

**Spatial theory and pedagogic practice**

While the body of literature that provides spatialized accounts of education, and specifically schooling, is growing and diversifying, there is an absence of spatialized accounts of pedagogic practice. None of the work cited above focuses on what teachers and learners actually (and usually) do when they teach and learn in school classrooms. The title of Edwards and Usher’s book, *Globalisation and Pedagogy*, suggests an interest in pedagogic practice but the authors soon point out that their ‘concern is not so much with the micro-practices of pedagogy in the classroom’ (2000 p. 7). Nespor also chooses not to focus on this particular aspect of school life in his book, *Tangled up in School* (1997); the one chapter in this book that does discuss a ‘lesson’ focuses largely on the relation between discursive domains (or, metaphoric ‘spaces’) within and beyond the classroom rather than on pedagogic practices as such. These choices of focus are valid and my comments are not meant as criticisms. The point is that there are no accounts, to my knowledge, which draw on spatial theory to examine pedagogic practice - with one exception: Nespor’s earlier book: *Knowledge in Motion: Space, Time and Curriculum in Undergraduate Physics and Management* (1994).

**Nespor: a spatial analysis of curriculum**

Nespor’s 1994 book is important here in that it provides a substantive example of a study which aims to provide a theorized account of the ways in which curriculum is spatially constituted. This account is explicit about scale and takes into account, to varying degrees, the three ways in which, according
to Lefebvre, social space is produced - spatial practices, representations of space and representational space - although these are not defined in the same way as Lefebvre defines them. Nespor's study is located in tertiary education, not schooling. However, his general analytic approach to curriculum could just as well be adopted in relation to schooling.

Drawing primarily on Latour, Nespor examines...

... how 'programs' spatially and temporally organize the material practices of students and how students in the programs begin to be engaged in discipline linked practices for producing spatial and temporal relations (Nespor 1994 p. 3).

His purpose is to develop an alternative conceptualization of learning and of disciplines. He argues that:

Disciplines' such as physics and management are constituted by cycles of accumulation (of knowledge) within networks that organize flows of people and things through space and time. (Nespor 1994 p. 10)

And:

Learning (in) a discipline isn't a matter of transforming one's psychological make-up (whether we see this as a function of developing internal 'equipment' or as the outcome of social activity). Instead, 'learning' should refer to changes in the spatial and temporal organisation of the distributed actors/networks that we're always part of. It isn't, contrary to Vygotskian interpretations, that we move from social to internalized knowing, from inter to intra psychological experiences: knowing is always distributed. Rather, we move through different spatio-temporal distributions of knowing (Nespor 1994 p. 11).

Drawing on Latour's (1987) actor-network theory, Nespor argues:

If people are spatially and temporally distributed and courses are the fluid intersections of elements stretching out across and moving through space and time, then the problematic we have to make sense of is the network of relations that tie things together in space and time: to understand what's going on in one intersection we have to look at the mesh that connects it to other intersections (Nespor 1994 p. 22).

Nespor builds a powerful argument for the thesis that particular disciplines, and the process of learning within particular disciplines, is spatially constituted in fundamental ways. To this end, he focuses on
• connections between events in the classroom (such as the reading of a text) and events in distant places (such as the production of the text and
• the ways in which particular 'programs' induct students into particular space/time practices, such as study groups or laboratory work.

There are fundamental differences between Nespor's conceptualization of social space and that of Lefebvre. Nespor's concept of social space is extremely broad. He includes in this notions of what Lefebvre would call mental space, represented in physics diagrams, and metaphorical space, describing for example social status within an institution. He refers to any kind of textual representation as 'representational space' and a textbook is a textual 'landscape' (p. 61). Progression from one section of a text to another is represented as a spatial 'journey'. Thus representational space is rendered metaphoric and the link between representational space and place, inherent in Lefebvre's understanding of the concept, is severed. Nespor does not distinguish between mental space (and its derivative, metaphorical space), social space and physical space. For Nespor, social space is not necessarily conceptually anchored to place. Used this broadly, I would argue, the notion of space loses its analytic purchase.

Conclusions

This chapter has reviewed the work of Lefebvre and related literature that argues for the mutual contingency of spatial and social dimensions in the constitution of social practices. This contingency is understood as a dialectic relationship, thus avoiding a view of space as either implacably obdurate or transparently plastic. The review has suggested that fashionable spatial metaphors that convey useful insights might nevertheless obscure our view of the complicity of real space and spatial practices in social practices, particularly when references to metaphoric space and real space are conflated in analyses.
The chapter then reviewed features of Lefebvre’s spatial theory that can contribute to an analysis of pedagogic practice by informing our understanding of the relation between practice and its context. While Lefebvre’s theory delineates three types of space-producing practices, it was suggested that one of these – spatial practices involving corporeal patterns of use of, and movement in, space – was particularly salient to an analysis of pedagogic practice.

The review favoured the argument that there is no single context of practice but rather a series of interrelated, nested contexts at different levels or scales. In so far as social practice is a corporeal as well as a social and discursive activity, the relation between practice and context is centred on the body in action: a body that is simultaneously discursive, social and material, that is located in and productive of space, and that is both extended and constrained by technology.

Finally, the chapter focused on Lefebvre’s concept of rhythmanalysis. This concept draws attention to the ongoing specialization and co-ordination of the spatial and technological aspects of practices to their social or discursive purposes, and to the tension between these processes and the everyday rhythms that pervade practice contexts. Social practices are inherently rhythmic. Rhythms are the carriers of routine, habitual strategies that co-ordinate the affordances of contextual technologies and spatial practices with social or discursive purposes.

The approach summarized here is in tension with accounts of spatial and technological aspects of pedagogic practice in Bernstein’s theory and situated practice theory, as reviewed in the previous two chapters. My intention is not to offer the position represented here as an alternative to the overall logic of these theories, but rather to bring these different positions into conversation towards developing an extended understanding of pedagogic practice. The conceptual framework, presented in the next chapter, will aim to resolve some of the tensions between these approaches.
Chapter five: Research design

This study was conducted using a multiple-site, embedded explanatory case study design with two explicit levels and one implicit level of analysis, as will be discussed below. The primary unit of analysis is the space/time bound lesson period, as an instance of pedagogic practice. Within the lesson, pedagogic activities are delineated. Secondary units of analysis are communicative events between staff outside the classroom and instances of spatial practices outside the classroom at the level of the school. The main data collection strategy was observation. The lessons took place in two different schools.

Yin (1984 p.23) defines a case study as an empirical inquiry that:

• investigates a contemporary phenomenon within its real life context;
• when
• the boundaries between phenomenon and context are not clearly evident; and in which
• multiple sources of evidence are used.

Typically, Yin adds (1984 p.21), the purpose of the case study is generalization of findings to theoretical propositions rather than to empirical universes. Meyer (2001 p.331) accepts this general characterisation of the case study, but adds that the case study generally has a relatively strong initial theoretical orientation that differentiates this design type from most ethnographic studies.

This study conforms to these features of the case study. In this chapter, the design of this study will be discussed more fully in relation to the features of case studies mentioned above. Thereafter, the discussion will turn to issues of validity, data analysis and the structure of the study.
**Aim**

The purpose of this study is to construct a description of pedagogic practice that can account for variations in practice and relate such variations to the context of practice. This is primarily a theoretical rather than an empirical enterprise. The empirical component of the study is intended to contribute to the development of this description: cases are examined through the explanatory lens developed here in order to facilitate the development of the lens itself.

In Bernstein’s (1996) terms, the aim of the study is to optimize the generative residue produced in the ‘gap’ between theory and the object it describes, and in so doing enable the residue to ‘speak back’ to theory. Bernstein refers to theory used in research as an internal language of description (ILD). When an ILD is brought to bear on a particular empirical phenomenon, it must necessarily be translated so as to make recognisable what counts as a realization of the theory. This translation produces what Bernstein calls an external language of description (ELD). There is never a direct correlation between the ILD and the ELD. Instead, there is a ‘gap’ between the two. Because of this gap, the ELD always exceeds the ILD, producing a residue that is not accounted for by the ILD. This residue is a resource for challenging and extending the ILD, i.e. for developing theory.

Lefebvre, typically, is more eloquent and less precise than Bernstein on this matter; he argues that thought must engage with life, and that this is the essence of his dialectical method:

> But the problem is to move to the highest level of dialectical reason: to think the notion dialectically, in a universal and concrete way, in other words by determining it in all the breadth of its universality and by grasping it in the minutiae of everyday life (1991b p. 109).

In short, a design aimed at developing theory should enable theory to address and be challenged by empirical phenomena. However an additional strategy has been used in this study over and above exploiting the ‘gap’ between the ILD and the ELD. The study has introduced not one but three internal
languages of description. The danger in drawing on different theories lies in the temptation to ignore the different premises on which they are based, or to conflate them. On the other hand, the promise of doing so lies in fruitfully attending to these differences so that they interrogate each other. In this regard, Lefebvre is the strongest methodological model for this study. As Highmore comments:

Seeing philosophy as so many critical, or potentially critical, tools allowed Lefebvre a very eclectic range of philosophical references. But the combining of, for instance, the work of Marx and Nietzsche is done not in an effort to synthesize the two, but so as to allow for the fracturing of both in a critical movement to dislodge the lure of the total system (2002 p. 116).

In this view, each set of theoretical resources provides the means to test, revise and extend the others.

**Generalizability**

This study makes no claim that the particular forms of pedagogic practice described here are representative of forms of pedagogic practice elsewhere. Instead, the study aims to develop a conceptual framework that can generate descriptions of pedagogic practices in any context, including forms of pedagogic practice quite different from those evident in this case.

Having said that, other research such as that of Christie (1998), and studies reported in the collection edited by Taylor and Vinjevold (2000), suggest that the particular forms of practice described here are not unusual in schools that bore the brunt of an apartheid legacy of neglect.

**Context**

A case study design enables the researcher to examine a phenomenon – in this case pedagogic practice – as a complex, interrelated, situated (or contextualized) process. The notion of a context is both methodologically and theoretically central to this study. The question of how the discursive, interactional and rhythmic aspects of pedagogic practice are related can be understood as a question about where practice ends and context begins.
A case study design requires the delineation of the boundaries of the case in question. In this study, the boundaries of the case are the boundaries of the context in which pedagogy takes place. However, the context of pedagogy is multi-levelled and has no single, final boundary. At its simplest, there is the lesson, the school or institution and the education system beyond the school, which in turn is embedded in a global set of practices, relations, discourses and material conditions. The theorists drawn on here acknowledge this multi-layering of pedagogic context, each in different terms. Lefebvre, for example, speaks of interrelated levels (2002 [1961]), Bernstein of an extended ‘pedagogic device’ (1996) and Lave (1996) of multiple interrelated contexts. This would suggest that a boundary drawn around the context of pedagogic practice is at best a necessary but artificial and pragmatic construct, a choice of focus.

The notion of a multi-layered context emerges clearly from the history of this project. Initially, the broader Learner Progress and Achievement Study (LPAS) – out of which this study grew - was conceived as an extended multi-phased comparative case study, i.e. a comparison of various aspects of the pedagogic experience of a two cohorts of learners in two secondary and two primary schools. The primary schools were selected on the basis of being feeder schools to the secondary schools. The two secondary schools were selected on the basis of differences in their grade twelve results in the preceding year4.

On the face of it, these secondary schools provided ideal comparison material. Both were located in the same geographical area, and drew local learners from working class and unemployed families. Both had a similar history within the former Department of Education and Training. Yet one produced substantially better results at grade twelve level than did the other. At the end of 1997, School A had an 84% pass rate compared to a 27% pass rate.

4 Chapter one provides an overview of research done in this broader study.
rate at School B, as was discussed in chapter one. In subsequent years the
difference has not been as great but grade twelve pass rates have remained
considerably higher at School A than at School B. Initially, it seemed
reasonable to consider the two schools as being two separate contexts
producing different outcomes that were presumably associated with different
pedagogic as well as management practices.

However, it emerged from the LPAS data, and later from this study, that there
were differences in practice modes within, as well as similarities across, the
two schools. In fact in the lower grades the differences in learner results were
much smaller than at the grade twelve level and results at School B were on
occasion higher than at School A, as the 1997 results reported in the
introductory chapter illustrate. While neither this study nor prior LPAS studies
focused on the grade twelve level, there were indications that differences in
results at that level had at least as much to do with factors extraneous to the
actual process of teaching and learning as with pedagogic practices. These
factors – referred to also in the description of the two secondary schools in
chapter one - included manipulation of access to grade twelve, management
of the allocation of learners to standard and higher grade subject levels and
the capacity to select more academically able students and maintain a more
stable student enrolment with less movement in and out of the school.

Ultimately, as regards pedagogic practice, the differences within and
similarities between the two schools were both more substantial and more
interesting than the differences between the schools. This insight led to a
stronger emphasis, in the study, on the notion of a multi-level context. At one
level of analysis, the two schools may be viewed as two contexts. At a lower
level each school encompasses multiple contexts, and at a higher level both
schools are part of the same context. The study finally aimed to show the
interrelatedness of these multiple levels. In these terms, the two schools
constitute a slice of a geographically, socially and institutionally defined
context i.e. former Department of Education and Training schools in a working
class area within the Greater Cape Town region. In order to show the
Theoretical basis of this methodological move, the concept of context – already discussed in the second, third and fourth chapters – is briefly revisited here.

The view of contexts as having nested and interrelated levels might seem trivial and self-evident, yet it runs counter to the dualistic macro-micro metaphor (for example of versions of structuralism) that pervades much realist and neo-realist social research. This macro-micro metaphor is premised on a stronger more stable hierarchical relation between discursive, social and material space/time practices within the symbolic field, than informs this study. In this view – represented for example in Bernstein’s work - macro structures privilege social relations and economic resources while micro processes in the symbolic field privilege discursive or cultural relations and symbolic resources. In fact, as was discussed in chapter two, Bernstein’s work is directed largely towards explaining the translation from macro-social relations to micro-symbolic relations, primarily by means of the internalisation of social experiences as cognitive coding through formative communicative acts. As regards this issue and its methodological implications, this study is ultimately premised on Lefebvre’s (1991) position rather than that of Bernstein. While Lefebvre, like Bernstein, recognizes an interface between levels and facets, the interface is more dialectic and multi-faceted in Lefebvre’s account: each level is embedded in the next, and this embedding is constituted in a mutually contingent and variable relation between symbolic, interactional and space/time and technology use facets of practice (See also Smith 1993).

The position adopted here can also be differentiated from the notion of multiple contexts emerging from situated practice theory (Lave 1996), as discussed in chapter three. Lave emphasizes the interrelatedness of multiple contexts, but does not view such contexts as hierarchical, layered or embedded. Like Bernstein, Lave privileges one aspect of social practice as constituting the links between contexts, although in her case it is interaction rather than discourse that is privileged.

The approach to context adopted here brings this design into conflict with views of the case study methodology that insist that this methodology
ultimately addresses a bounded social entity. Yin (1984) acknowledges that
the focus of conclusions emerging from multiple embedded case studies may
range across multiple levels and that in such studies presentation of data may
not be grouped according to case. Ultimately, however, he argues that a study
can be deemed to be a case study only if the primary focus of the conclusions
relate to the 'case' rather than to either sub units of analysis or to features that
cut across multiple cases. In so far as the boundaries drawn around the cases
in this study are more pragmatically drawn and more permeably conceived
than Yin suggests should be the case, this study does not meet his criterion.
Empirical conclusions from this study pertain to the relationship between
levels (pedagogic practices and spatial practices at the level of grade nine
lessons, interactional practices and spatial practices at the level of the school)
and across schools, as well as to each particular level. Perhaps the strongest
empirical conclusions gesture - through strong similarities between the
schools - towards the two schools being a slice of a larger context, rather than
single or multiple cases. In spite of the discrepancy between the approach
adopted here and that advocated by Yin and others (Meyer 2001, Gomm,
the term 'case study' is retained because of the similarity of all other features
of this study to the conventional understanding of a case study.

Site selection

The purposes of this study do not necessarily privilege the selection of one
school, grade or district over another: the aim of conceptualising the
relationship between the discursive, interactional and rhythmic aspects of
pedagogic practice could have been pursued with reference to any school
anywhere. Having said that, some schools offer richer data than do others as
regards the aspect of pedagogic practice that was of particular interest in this
study, i.e. the repetitive aspect. Nevertheless, it cannot be said that the
schools selected here were selected because of a focus on repetition led
practice. Rather, the development of the notion of repetition led practice was a
result of an attempt to describe and explain pedagogic practices that were
perceived as distinctive in these particular schools. Thus a theoretical
question was suggested by curiosity about a particular empirical phenomenon evident at sites where prior research was already under way. This approach to site selection conforms loosely to Yin’s notion of ‘purposeful selection’.

The selection of the ninth grade as a focus group also followed from the origins of this research in the larger Learner Progress and Achievement Study. That study was initially framed as a cohort study, which followed a particular grade group through the five years of secondary school, while a primary cohort was simultaneously followed through the primary programme. The secondary cohort happened to be in grade nine in the year this study was conducted. Here the selection was purely opportunistic.

**Data collection**

The study relies largely on observation data including observational tracking of extended sequences of activities. A questionnaire was used to supplement and validate observation data. The data collection strategies listed below represent an attempt to bring into focus referents for each of three aspects of the development of pedagogic practice: pedagogic discourse, interactions within a community of practice and institutional spatial rhythms.

The LPAS study was initiated in October 1997. Most data for this study was collected between January and December 1999, but I returned to the schools on occasion between 2000 and 2002. Data was collected in the following ways:

1. Three classes were tracked and observed for six school days. The data derived from this process constitutes the core data for the study. One grade nine class was tracked for three days in School A, while two grade nine classes were tracked for two days and one day respectively in School B. During the three days, thirty-six ‘lessons’ were observed.

2. Each of the school principals was tracked and observed for one day.
3. One staff meeting at each school was observed, although two other meetings were attended.

4. Interactions between teachers during break times and after school in the staff rooms were observed for one day in each school. On numerous other occasions, researchers spent time in both staff rooms but did not take field notes in the same systematic way.

5. The movements of teachers were formally observed for one day in each school, before school, during break and after lessons had ended. Again, the purpose of these observations was to generate systematic field notes pertaining to practices that were less formally observed on numerous other occasions.

6. The movements of learners into, around and out of each school were formally observed for one day. This observation again generated systematic field notes pertaining to practices informally observed over a long period of time.

7. Learner registration and 'start up' practices in each school were observed on the first day of the year and, intermittently, during the following weeks until normal teaching started in the schools.

8. Two individual selected learners were tracked and observed at break for one day in each school.

9. During visits to the schools, all three observers noted occasions on which the ‘normal’ structure of the school day was disrupted by, for example, early closing.

10. Teachers at both schools were asked to fill in a questionnaire relating to space/time practices and the content of meetings.
No subject department meetings were observed during the initial data collection period. Attempts to observe such meetings subsequent to this period were unsuccessful; meetings simply did not take place at the times scheduled in either of the schools. In the end, data relating to the content of these meetings was drawn from the staff questionnaires only.

Three observers were involved in each phase of data collection listed above, with the exception of principal tracking and staff meeting observations. Where three observers were involved, each observer was tasked to focus on a particular aspect of the phenomenon being observed. In the case of principal tracking and staff meeting observations, only one researcher collected data.

Two researchers (apart from myself) were involved in the collection and transcription of data, and the contribution they made by doing so was enormous. I was however solely and exclusively responsible for the design of the research as well as the development of a theoretical framework, the data analysis and all other aspects of producing the report for this study, over and above the contribution made by Pam Christie in the course of supervision.

**Research instruments**

With the exception of the questionnaire, all data collection instruments for observations were explicitly focused but otherwise unstructured. Prior to data collection, the three researchers were given criteria to guide and differentiate the foci of each set of observations. Data was recorded in the form of notes, including full records of public verbal interactions, where relevant. In each case, observers were tasked to record time punctuations, though the pacing of such punctuations depended on the specific phenomenon being observed. In all cases, observers were also tasked to note comments and impressions.

**Lesson observation data**

As regards classroom based pedagogic practice data, the initial focusing criteria for data collection were different for each of three observers:
Observer one recorded all public speech (i.e. speech that was addressed to the class as a whole).

Observer two recorded all forms of interaction set up by the teacher (such as group work or whole class discussion) or spontaneously adopted by learners (such as chatting informally) as well as all space/time and material practices including the arrival, movements and departure of teachers and learners, seating arrangements, classroom organisation and coding of display areas.

Observer three recorded the use of resources or equipment including books as well as non-verbal forms of communication (such as distribution of materials or writing on blackboards).

Observation schedules were unstructured, apart from the requirement to take the fullest possible notes on the focus areas listed above, and to record time punctuations. This involved noting the time when there was a new development such as the entry of someone into the class or a change in lesson activity or direction.

Institutional interactional practices
As regards institutional practices, the criteria were to record formal and informal interaction between teachers and teachers, or teachers and management. During staff meetings, only interactions addressed to the whole meeting were recorded in full. During principal tracking, all formal and informal interactions and other activities involving the principals were recorded or described in full. During break time tracking of staff, any interactions audible to the two observers in the staff room were recorded. Here, audible exchanges pertaining to pedagogy were recorded in full while exchanges unrelated to pedagogy were briefly noted.

The observation schedules for institutional interactional practices were unstructured, apart from the requirement to focus on the specified interactions and to insert time punctuations at least every five minutes and also at the beginning and end of salient interactions.
Institutional spatial practices

As regards spatial practices, the criteria were to record patterns of movement of management, teachers and learners as they entered the school, moved through the day and departed. Descriptions of architectural layout, availability of equipment and visual coding of display areas were also collected in the form of notes and sketches.

The mode of recording differed for each activity:

- In the case of learner registration, observers visited the schools on the first day of the year, and on subsequent days, and noted whether teaching had commenced and, if not, how staff and learner time was occupied.

- In the case of learner movements, the numbers of learners moving in and out of the gates was counted and recorded, with times, through out the day in each school. On a different day in each school, all three observers moved around the school during break noting and describing learner activities in different parts of the school grounds.

- In the case of learner tracking, an observer asked a learner if she could accompany the learner and his or her friends as they went about their normal break time activities on a particular day. Two girls and two boys - a pair from each school - were selected from observed grade nine classes to be tracked in this way. These tracking occasions also constituted informal interviews about learner activities during breaks. As a safety precaution, a Xhosa speaking man was asked to accompany the observers and the students if they left the grounds. This was an appropriate precaution, as three of the four students left the school grounds to visit their homes, buy food or visit a games hall during break. (One of the observers had previously been subjected to a – thankfully unsuccessful – rape attempt and another had narrowly avoided a car hijacking in the area.)
In the case of principal tracking, the principals’ movements throughout the day, as well as his regulation of the movements of others, were recorded by one observer.

In addition to the ‘aspect specific’ data collection strategies outlined above, a questionnaire was distributed to all staff (See Appendix A). The aim of the questionnaire was to obtain supplementary data relating to the daily pattern of activity, the modes and content of interaction between staff and the frequency, form and content of in-service activities. The responses to the questionnaire were uneven, and are discussed more fully in the section on reliability below.

**Language use**

The medium of instruction in both schools was English. However, the mother tongue of most of the staff and learners in the schools was Xhosa. Teachers and learners frequently used Xhosa both during lessons and during other activities such as break time interactions. Only one of the three observers was fluent in Xhosa, and in all observations the task of recording verbal interactions was allocated to this observer.

In all but two of the observed lessons, the Xhosa component of public speech took the form of short exchanges or comments rather than extended narratives or dialogues. In most cases, the observer translated the exchanges immediately, thus producing an English record. In some cases, the Xhosa text was recorded and translated later.

**Validity**

Maxwell (1996 p. 88) differentiates between three types of validity of qualitative research: descriptive, interpretive and theoretical validity.

**Descriptive validity**

Descriptive validity depends primarily on the completeness and accuracy of the data. In this regard, this study depends largely on detailed field notes taken by researchers during observation of lessons and other selected
moments in the life of the schools. In the case of classroom observations, three sets of notes were taken simultaneously, but the focus of each set of notes was different.

The first two of six days of classroom observations served as a pilot for the study. The field notes from these observations were reviewed in relation to the purpose of the project, and on the basis of this review it was decided that the instructions regarding the recording of ‘public speech’ in the classrooms had not been sufficiently stringent. The notes relating to three of the twelve lessons observed during these two days were adjudged to be insufficiently complete, and data from these three lessons were not included in the final data sets. The notes pertaining to the remaining nine lessons were adjudged to be sufficiently detailed and complete for inclusion in the final data set, as were notes pertaining to lesson observations on four subsequent days. Field notes pertaining to observations of other moments in the life of the school were also adjudged to be adequately complete and accurate, in relation to the purpose of the observations.

Generally, transcripts based on recordings enable the researcher to ensure greater descriptive validity than do field notes. In this case, however, such recordings would have posed a threat to what ethnographers sometimes refer to as ecological validity, or reactivity. In other words, the actual recording process might have disrupted the typical everyday, routine practices within the school to a greater degree than note taking would have done. This issue is discussed more fully below.

The descriptive validity of data pertaining to staff meetings and subject meetings is less strong than classroom observation data but strong enough to support the claims made in the study. Claims made about these meetings pertain to matters appearing most frequently on meeting agendas. Only one staff meeting was formally observed in each of the two schools. Other meetings had been attended, but full field notes had not been recorded. However, claims made on the basis of this observation are also supported by
staff responses to relevant items on a questionnaire. Questionnaires were issued to all staff and returned by 66% and 60% of staff at School A and School B respectively – 51 responses in all. The relevant question regarding staff meetings was answered by 42 of the 51 respondents. The relevant question regarding department meetings was left unanswered by only one respondent, who was at School B. These claims have also been confirmed more recently in informal discussions with staff at School A and with the acting principal at School B.

**Interpretive validity**

Maxwell (1996 p. 89) argues that the main threat to valid interpretation is imposing one’s own framework or meaning, rather than understanding the perspective of the people studied and the meaning they attach to their words and actions. However, Maxwell’s position suggests that the purpose of interpretation is to uncover the interpretations of the subjects of research. While it is clearly possible – and reprehensible – for research to misrepresent or misinterpret the meanings of subjects, the position adopted in this study rejects the idea that the subject’s accounts can be taken at face value as representations of the world, or that these accounts are all we can know of the ‘real’ world. Instead, the purpose of the sociological method – as understood here and informed by the approach of Bernstein, Lefebvre, Bourdieu and others – is precisely to reinterpret the meanings, and more specifically the actions, of subjects in the light of theory. This issue pertains to the validity of this study in relation to the decision to describe pedagogic practice on the basis of observation rather than interviews, or interviews and observations.

The study explores the possibility that pedagogic practices have their origins not only in rational decisions based on an interpretation of a pedagogic, symbolic code and more behavioural imitation of available models but are also constituted as a less conscious repetition of habituated, corporeal time-space rhythms. The interview, by virtue of its discursive form, frames pedagogic activity in relation to rational purposes and would be unlikely to elicit a reflection – from any teacher anywhere – on the complex and often unconscious interaction between these three levels. One could reasonably
expect that spatial practices, as the most corporeal, habitual and taken for
granted facet of pedagogic practice, would not have been fore-grounded in
such accounts. It is more than likely that the interview – as a discursive
strategy – would elicit accounts of pedagogic practice that foreground a
discursive facet. Bourdieu makes a similar point when he argues that it is an
informant’s theory, rather than lack of it, that gets in the way of her ability to
convey to a researcher her perceptions and practical knowledge:

Finally, the informant’s discourse owes its best–hidden properties to
the fact that it is the product of a semi-theoretical disposition, inevitably
induced by any learned questioning. The rationalisation produced from
this standpoint, which is no longer that of action, without being that of
science, meet and confirm the expectations of the juridical, ethical, or
grammatical formalism to which his own situation inclines the
observer... But the subtlest pitfall doubtless lies in the fact that such
descriptions freely draw on the highly ambiguous vocabulary of rules,
the language of grammar, morality and law, to express a social practice
that in fact obeys quite different principles (Bourdieu 1977 p. 19).

This issue is of particular concern in this study, given the partial focus on
everyday, banal space/time and technology (i.e. non-discursive) aspects of
practice. As Lefebvre puts it:

To experience banality is not enough to tell us what banality actually is.
Thought about the everyday tends to be limited to thought about

The purpose of this study is to question, rather than take for granted, the
commonly held assumptions of teachers (and researchers) about the
principles that ‘social practice in fact obeys’. It might justifiably be argued that
interviews would at the very least have generated important supplementary
data regarding the discursive aspect of pedagogic practice, and that
epistemological concerns could have been addressed in the selection of
questions and in the analysis. The approach adopted here was to rely on the
strategy of identifying discursive purposefulness through analysis of the
connections between the different aspects of teachers’ observed practice
rather than through interviews or other possible methods such as testing of
teachers’ subject knowledge. A further pragmatic and contextual consideration
came into play in the decision to rely on observations: It was perceived that
teachers were not open to discussing their pedagogic practice even though
they were willing to be observed. Part of the reason for this was my perception that the ‘culture’ of the school was not conducive to discussion of pedagogic practice. Indeed, the research itself indicates that such discussion was almost non-existent, even between teachers themselves. In this context, there was a danger that interviews would alienate teachers or elicit only the responses that the teachers thought the researcher wanted to hear.

This is not to say that no teachers at the school would have been open to discussing - or being interviewed about – their pedagogic practice. Indeed, some of the observations were followed by spontaneous comments from teachers about their practice. There were also teachers who did not happen to be observed who would, in all likelihood, have been open to being interviewed. But of those teachers who were observed, the ones who were most open to such discussion were also those whose practices were, in analysis, constructed as being discourse led. This is in itself theoretically interesting, but pragmatically it meant that the majority of the teachers who were observed did not signal openness to being interviewed. This issue will be picked up again, below, in relation to the question of observer effects or ‘reactivity’ on observation data texts.

**Theoretical validity**

A third type of validity mentioned by Maxwell (1996) is theoretical validity. Threats to theoretical validity entail not paying sufficient attention to discrepant data or alternative understandings of a phenomenon. As regards the latter, a dialectic between different understandings of the phenomenon being studied is central to the theory and methodology of this study, placing the issue of theoretical validity at the heart of this project, as is discussed more fully below.

**Validity tensions**

Maxwell reminds us that the definition of something as a validity threat is theory dependent:

> The recognition of alternative interpretations and explanations is influenced by the theory that you hold of the phenomenon being studied – what you see as relevant (1996 p. 93).
This points to the validity implications of a particular aspect of this study, i.e. of bringing together diverse theoretical resources. This section considers some of the tensions arising from working across different theories, with a particular focus on a definition of what is deemed to be relevant and the issue of ‘reactivity’ or the influence of the researcher on the practices that are the object of study here.

All the data texts derived from the processes listed above may be viewed as representing frozen fragments of school life selected in order to generate systematically recorded texts for analysis. The use of the term ‘formally observed’ here is not intended to mean that research instruments were pre-structured – which they were not – but rather to differentiate between detailed recording of a demarcated moment in the life of the school and ongoing informal observation of the broader flow of school life. Informal observation refers here to the numerous occasions on which observers were present in the school for some particular purpose, but were nevertheless taking note of the shape and flow of school practices in general.

Informal observations informed decisions about what data to collect, enabled validation of data texts as representative of typical everyday practices in the life of the schools and also informed the analysis and interpretation of the texts. Apart from visits made during the year of data collection for this study, there had been frequent visits to the school for other research purposes for a period of eighteen months prior to this study by all three observers. The products of the other studies in the school constitute background resources for this study. This use of informal observation in the ways described above does not amount to a claim that this study is ethnographic in character. Rather, this case study makes use of ethnographic elements in so far as the researcher’s broader experience of the school context is acknowledged as a significant influence on the research design and on interpretation of the data.

But the ethnographic components of this study also work in a different way. The study draws on and articulates three different theoretical traditions, or
internal languages of description. Methodologically, each of these makes different demands. Two of these traditions – Bernstein’s theory of pedagogy and situated activity theory of social practice – require the researcher to make salient particular aspects of classroom and institutional practice. Once this process has been completed, the researcher can recognize and focus on the relevant elements of practice. An example of such a foregrounded element in this study is the evaluative component of pedagogic practice: this is derived from Bernstein’s theory of framing and is empirically recognized as interactions in which the teacher explicitly communicates to learners criteria for correct or incorrect learner productions.

This fairly standard approach to data collection does not work in quite the same way for the relationship between theory pertaining to spatial practices and the everyday, and associated data collection strategies. Highmore (2002 p.19) captures this problem most succinctly in his comment that the everyday is the remainder after what is salient has been removed: ‘To attend to it is to lose it.’ Shields makes a similar point:

The everyday is not only banal but so mundane that it is of the essence and yet beneath the radar of domination and power relations. As a social field it is brought into existence only via daily practices (2002 p. 4).

The form of the everyday is not easily recognized by lifting out any single exemplar of practice, partly because it is constituted as repetition or recurrence (Lefebvre 1971 [1968], Brown & Kelly 2001). The development of an external language of description for the everyday, and more specifically for rhythms of practice, demands a different methodological approach:

But within the context of everyday life, attempts to focus rigorously on a world of flows, of movement and becoming, elude most cultural and social research methodologies. They demand a new calculus of change, perhaps not methods per se but allegories and forms of analysis. These anti-methods ... keep mobile phenomena in view rather than tracking their quarry through races in analytical landscapes too often emptied of the complexity of human life. Even in cultural research, those experiences that give meaning to human life, that give colour to existence, are too often trivialized and excluded (Nietzsche, 1994) in the name of contemplation and knowledge (Shields 2002: p. 5).
For Lefebvre, the everyday is evident primarily in spatial practices. These everyday spatial practices tend to be taken for granted and, even when made visible, viewed as banal. The need to develop data collection strategies that capture what has been referred to in this study as rhythms of practice was a difficult and, initially, frustrating task. In my own community of practice as a researcher there were few models for a methodology that takes the banal seriously, and little respect for such a project. In the face of this disdain my ‘discourse led’ commitment to focusing on the spatial and the everyday often wavered during the early stages of this project.

From a methodological point of view, identifying rhythms involves a focus on the absence as well as the presence of expected forms of communication, on the spatial and corporeal field as much as on the discursive and interactional figure. Generally, the transmission component of pedagogy is defined – for example by Bernstein – in relation to salient communicative acts of the teacher. Yet pedagogic rhythms - once established – can continue in the habitual spatial and corporeal reverberations of a discursive act. It is not that pedagogy is ever empty of purposeful transmission acts – it is not - but rather that such acts can reverberate long after their initial impulse is no longer evident, like circles emanating from the place where a pebble has been thrown in a pond. In the process, the initial communicative act can become attenuated to the point where it becomes a relatively minor component of the pedagogic experience. The recognition that pedagogic practice is at least partly a rhythmic practice makes it imperative to pay attention to what is happening around and between the discursive pedagogic acts when, from the point of view of a theoretical and methodological approach that privileges the discursive, ‘nothing is happening’. This requires a methodology that makes strange the taken for granted and the everyday that, according to Lefebvre, is evident at least partly in spatial practices.

Finally, identifying rhythms of practice embedded in the everyday requires a methodology that minimizes observer effects and the disturbance of normal routines. This is in tension with the need to construct data texts that are
reliable detailed records of what actually occurred. In this study, strategies (such as video or audio recording) that might have enhanced the accuracy and completeness of data texts were also likely to influence learners and teachers to deviate from routine practices. Indeed, experience of researchers in this study suggests that data derived from observations by researchers who ‘pop in’ with much prior organisational fanfare and with unfamiliar recording equipment are highly unlikely to represent anything like what usually happens in any particular classroom. The aim here was to construct data texts with adequate descriptive validity, while minimising the impact of the researchers’ presence on daily routines as much as possible. To this end, detailed notes were taken but no other recording technology was used.

However, the presence of three researchers in a staff room or classroom is anything but routine, especially when two of them are white while most of the teachers and all the learners are black. Thus no claim is made that there was no researcher effect. But having said that, all three researchers had been ‘hanging around’ the school for nearly two years by the time most of this data was collected. During this time, the three researchers had been accepted by management, teachers and learners who had established a stance towards the researchers long before the observations took place. The presence of the researchers had brought some benefits for management when, for example, researchers contributed to the development of a school data system. Over time, each of the researchers came to know some teachers much better than others, and the attitude of teachers to the researchers varied from friendly to completely disinterested.

The arrangements for tracking and observing classes involved observing a series of teachers on each of the observation days. The selection of teachers depended on the lessons that happened to be scheduled on the days the classes were to be tracked. Principals agreed to this arrangement and also agreed to discuss the arrangement with the teachers who would be teaching the classes on those days, and to put the observers in touch with teachers who felt uncomfortable or wanted to discuss the arrangement. However, in both schools, neither the principals nor the teachers gave these arrangements
much attention. In some cases, teachers appeared not to have been informed - much less consulted - about the arrangements, but when the observers arrived and asked whether they minded being observed, teachers indicated in each case that that they did not mind. It was obvious that teachers generally did not feel the need to produce model lessons for the benefit of the observers, who clearly had no authority as evaluators. Perhaps the strongest factor in our favour was the understanding – based on experience over the previous two years – that no judgements or intervention would follow from our observations.

On the other hand, three teachers indicated in comments to the observers that they had not planned to teach at all (or even to be present in the class) in a particular period, but decided to use the period for teaching after all once they discovered that the observers would be present. Thus while the presence of observers had relatively little effect on the quality of the lessons taught, our presence did have an effect on the quantity, or number, of lessons in which teaching took place.

Even though the three researchers established generally positive relationships with management at both schools, and also with some of the teachers, we were aware of a general but unevenly distributed level of apathy and alienation amongst staff at both schools in relation to pedagogic practice, and also to our research. As has already been mentioned, some staff members were enthusiastic about their teaching, and about discussing it, but this was not the norm. This had implications for the nature of observer effects – or its absence – at the schools. Christie has suggested that the kind of pervasive negativity, anxiety and apathy among teachers noted here is a manifestation of a broader breakdown of learning and teaching in poorly performing South African schools. She argues that these

... problems go beyond the explanatory powers of rational theories of organisation. To understand and remedy problems of this nature, perspectives derived from psychoanalytical approaches to organisations may be more useful (1998 p. 291).
Christie argues that the breakdown of authority and of the boundaries of time and space leads to a breakdown in social relationships and social defences, disabling teachers’ abilities to focus on the shared ‘core business’ of teaching and leaving them no choice but to act out deep psychotic anxieties. From a methodological point of view, these comments resonate with researchers’ perceptions that teachers gave the appearance of being apathetic also about being observed, so long as there were no evaluative or other consequences, and so long as they were not required to discuss or reflect on their practice, to vary their usual routines in any way or to do additional work.

Only on one occasion did some of the teachers actually express any opposition to research activities to researchers. This took the form of written comments in the (anonymous) questionnaires. Two of the 51 respondents to the questionnaires commented that they did not want to use their free time filling in questionnaires. Again, this response suggested that the one aspect of the research that was threatening to some teachers was the possibility that research activities would rupture daily routines or require teachers to focus explicitly on the shared core business of teaching.

Christie explains levels of anxiety among teachers in relation to the breakdown of space/time boundaries. This view could fruitfully be elaborated with reference to a distinction between space/time practices that have been specialized to discursive purposes and space/time practices that emerge more organically from the agglomeration of everyday rhythms. This research suggests that, where the former is absent, teachers might take refuge in the latter. The methodological implication is that teachers would resist data collection strategies that draw attention to the absence of interactional and space/time practices specialized to discursive purposes, and in effect, drive teachers out of their refuge and implicitly expose them to criticism.

**Construction of data texts**

Construction of the core lesson observation data texts involved merging the three sets of observation notes into a single transcript. Time punctuations
were used to correlate notes from different observers pertaining to the same moment or event in the course of the lesson. In this way, a single data text was constructed for each lesson, with annotations and sketches.

All other observation notes were typed up and used in their original format.

**Analysis**

The first stage of analysis involved fracturing the data in relation to categories derived from Bernstein and Lefebvre (as regards lesson observation data) and from Lave and Wenger, and Lefebvre, as regards interactional and space/time/object practices at the level of the school (Maxwell 1996 p. 78 ff). Once conceptually salient features of the data had been drawn out in this way, lesson descriptions and descriptions of institutional practices that foregrounded these features were constructed through a process that Maxwell describes as ‘contextualising’ (1996 p. 78 ff).

The approach to data analysis adopted here is oriented towards explanation building (Yin 1984 p. 108). It involves constructing descriptions of the patterning of relevant features of a particular phenomenon - pedagogic practice – and matching these descriptions to one or more (in this case three) ideal type models.

**Lesson periods**

The primary unit of analysis for this study is the lesson period. Within the lesson, activities are identified as sub-units. The lesson is defined in relation to its space/time boundaries, rather than its content (such as pedagogic activities) so that the analysis can include space/time and interactional practices whether or not they are directly or obviously associated with transmission of a privileged text by a teacher. This definition ensures that data analysis (and prior to that, data collection) strategies elicit not only the figure of overt discursive transmission practices but also the ground of interactional and spatial practices. In terms of this approach, ‘lessons’ in which there were no teachers present and/ or no texts selected for transmission, were included.
in data collection and analysis. The analysis does not assume that there is a clear boundary between pedagogy and not-pedagogy, or that there is no pedagogy where there is no immediate evidence of a teacher presenting a text. Instead, the analysis aims to explore the relation to pedagogic practice of all space/time/object and interactional practices in the classroom.

The analysis of the lesson data texts involved re-describing lessons in relation to descriptions of three ideal types of lessons that constitute the analytic framework, or external language of description, presented in chapter six. These ideal types had themselves been developed through an iterative process of

- interrogating theoretical descriptions of pedagogy represented in chapters two, three and four in relation to each other to produce an extended conceptual description, or internal language of description
- operationalizing theoretical concepts in relation to the data through initial attempts at analysis, to develop an external language of description
- developing the external language of description to take account of features of the data that were not adequately described in the initial framework.

The descriptions of ideal type lessons incorporated all three facets of practice, i.e. discursive texts, interactional practices and space/time/technology practices.

Once the description of ideal types had stabilized, lesson observation texts were reanalysed in relation to features that were salient within the external language of description. This phase of analysis generated lesson descriptions. These were categorized, through comparison and matching, to the three ideal lesson types.

**Institutional practices: Interaction**

The units of analysis for interaction at the institutional level were exchanges such as conversations or contributions to a meeting. As in the case of the analysis of lesson observation data texts, the points of reference for the
analysis were descriptions of the three ideal type lessons. These lesson descriptions are complemented by theoretically derived models of the types of interactional practices that would be most supportive of, or compatible with, the pedagogic practices represented by the lessons. Data texts were again categorized, through comparison and matching, to the three ideal types.

**Institutional practices: Space/time/technology practices**

The unit of analysis for space/time and technology practices at the institutional level was a single or collective act or movement, such as movements into or out of the school or classroom, or the act of making a photocopy. The focus of the analysis was on movements and acts, rather than on spatial features, such as the coding of the display area on staff room walls, although data pertaining to such features had been collected. This focus followed from a conceptual focus on rhythms that emerged during the course of the study.

As in the case of the analysis of other observation data texts, the points of reference for the analysis of space/time/technology practices were descriptions of the three ideal type lessons, specifically the theoretically derived models of the types of space/time/technology practices that would be most supportive of, or compatible with, the pedagogic practices represented by the lessons. Data texts were again categorized through comparison and matching to the three ideal types.

**Organisation of the thesis as a whole**

The structural logic of the report is loosely what Yin (1984 p 133) calls an explanatory theory building structure. After an introductory chapter that sets up the problematic of the study against a background of pedagogic practices in South African schools, chapters two, three and four interrogate three different theories of pedagogic practice in relation to each other. On the basis of this dialectic process, conceptual and analytic frameworks are developed and presented in chapter six. This framework presents the different approaches as pertaining to different types of practice, rather than as independent explanations of the same practice. The analytic framework
guides the analysis presented in chapters eight and nine as a basis for conclusions presented in chapter ten.
Chapter Six: Analytic framework

The preceding chapters have reviewed three different theoretical approaches to social and pedagogic practice. This chapter will explore tensions and complementarities between these theoretical approaches (or internal languages of description) as a basis for developing an analytic framework (or external language of description). I will suggest that the complementarities are substantial enough, and the contradictions productive enough, to enable me to develop a framework based on Bernstein’s description of pedagogic practice extended by insights from situated activity theory and, more substantively, from Lefebvre’s rhythmanalysis. In this way I carry forward into the development of an analytic framework the dialectic conversation between three approaches that has characterized the conceptual grounding for this study.

The framework will be developed iteratively, through a process of relating the data to the theory and vice-versa, as was discussed more fully in chapter five. This chapter will include vignettes and examples from the data in order to illustrate how descriptions are empirically realized.

The three sets of theoretical resources reviewed in preceding chapters have in common two explanatory propositions. While these propositions are expressed in different vocabularies in the different approaches, they refer to comparable entities. First, social or pedagogic practice comprises discursive, interactional and material or rhythmic aspects (incorporating space/time and technology use). Second, practice can be described in relation to these three aspects at an internal practice performance level and at an external level of practice development. The three approaches differ in the way they explain the relation between the three constituents, both as external referents and as internal facets of practice. The first two approaches privilege discourse and interaction respectively, while the third asserts a constitutive role for space/time and technology use rhythms within a hybrid practice.
The distinction between an external and an internal level of practice is suggestive of a dual identity of the teacher. The external level positions the teacher as an ongoing acquirer and developer of pedagogic practice competence within the context of an institution, practice community or education system, while the internal level positions the teacher as a performer of pedagogic practice. Each approach has different implications for the relation between the teacher as practice developer and the teacher as practice performer.

**Pedagogic discourse as organising referent**

Chapter two reviewed Bernstein’s position that the organising referent for pedagogic practice is pedagogic discourse. A pedagogic discourse is external in the sense that the (metaphorical) grammar and form of the discourse is not contextually contingent; it is a symbolic system comprising an instructional and a regulative discourse recontextualized to the teacher from other domains within the education system by means of a pedagogic device. At the level of practice performance, or framing, pedagogic discourse is regulative of interactional and locational framing.

Bernstein’s theory suggests that, in the case of pedagogic practice within educational institutions (pertaining to the transmission of vertical discourses), the teacher as practice acquirer may contest and reconfigure the pedagogic discourse at the micro or classroom level, within the constraints of external classification (or structures) and framing (or control). The teacher’s practice is generated as a transformation of a vertical pedagogic discourse rather than as a segmental borrowing of strategies within a community of practice or as a response to material and spatial rhythms, affordances and co-ordinations. In these terms pedagogic practice produces - and is not contingent upon - the pedagogic context.

Chapter two argued that there are tensions within Bernstein’s theory, specifically regarding whether pedagogic practice in schools can be explained exclusively in terms of the logic of the transmission of vertical discourse,
which explains pedagogic practice with reference to a context independent
discourse, as opposed to the logic of transmission of horizontal discourse,
which explains pedagogic practice in relation to contextually based
knowledge.

The term 'discursively regulated' is used, in this analysis, as shorthand for
regulation by a context-independent symbolic system, or (vertical) pedagogic
discourse. This does not suggest that practice that is not discursively
regulated does not have a knowledge base, only that it does not have a
knowledge base of a particular type. In these terms, Bernstein's approach is
premised on the notion that pedagogic practices in the classroom and control
of those practices at the level of the school are discursively regulated. By his
own implicit admission (2000), Bernstein's theory does not explain how
discursively regulated aspects of school life (external classification and
framing) articulate with pedagogic culture, or those aspects of school life and
interaction that are not discursively regulated. The criticism that Atkinson
directed at Bernstein in 1985 generally holds true also for Bernstein's later
work:

It is undoubtedly true that in Bernstein's general approach there is little
or no concern for the perspectives, strategy and actions of individual
social actors in actual social settings (Atkinson 1985 p. 32).

This analysis picks up the distinction Bernstein introduced in 2000 between
discursively regulated practices and non-discursively regulated practices at
the level of the school. This is an important distinction in the context of sectors
of education systems in which the functioning of the pedagogic device is not
consistently effective. By this I mean that, within the recontextualization
process, strong or weak control cannot always be equated to strong or weak
framing, where framing refers to discursively regulated control. At the level of
the school, for example, strong or weak external framing refers to control that
is centralized to school authorities or decentralized to teachers, on the basis
of projected requirements of the instructional and regulative discourse,
including theories of teaching and learning. If, for example, school
management time-tables mathematics periods in the first period and guidance
periods at the end of the day on the understanding that mathematics is more
cognitively challenging, this would constitute an example of strong external framing. If, on the other hand, an individual art teacher uses early periods for art theory and late periods for art practicals, without having to refer this decision to a department head, this would constitute an example of weak external framing.

Strong or weak general control refers to control that is not discursively regulated, in the sense that it is not oriented toward the projected requirements of particular instructional discourses or theories of teaching and learning (regulative discourses). If, for example, school management shortens the school day because public transport is not available after a certain time, the authorities would be exercising strong general control rather than strong framing. If, on the other hand, teachers dismiss classes early, without permission from school management, this would constitute an example of weak general control rather than weak framing.

The public transport example shows how general control by school management can respond to space/time and technology practices. On the other hand, if schools close early on a Friday because that is the convention for schools in the area, the general control in this regard would respond to the circulation of practice strategies in a practice community. These examples illustrate the point that, at the level of the school, strong or weak control of pedagogic practice may be constituted in relation to pedagogic discourses, the circulation of segmental strategies or the affordances of space/time and technology rhythms.

At the internal level of practice performance, a distinction will also be made between elements of practice that are or are not discursively regulated. Bernstein's term 'framing' will be reserved for reference to practice elements that are discursively regulated. In Bernstein's terms, discursive regulation may take two forms. Generally, discursive regulation refers to regulation by a pedagogic discourse, constituted as an instructional discourse embedded in a regulative discourse. However it is also possible to have teacher-learner interaction governed by a regulative discourse without an instructional
discourse, as was discussed in chapter two. In this case, the teacher controls
the behaviour of learners without transmitting a pedagogic text. In this
analysis, interaction involving a regulative discourse without an instructional
discourse suggests that a teacher’s control of learner behaviour is guided by
context independent theories or concepts of appropriate learner behaviour
and interaction.

The review concluded that, firstly, a critical engagement with Bernstein’s
theory opens up the possibility that pedagogic practice may be regarded as a
hybrid practice, i.e. a practice that incorporates elements of the logic of
vertical discourse transmission and elements of the logic of horizontal
discourse transmission. However, a hybrid pedagogic practice can only be
successful in transmitting a vertical discourse to the degree that it takes the
grammar of that discourse as its dominant referent. This follows from the
requirement that successful transmission of a vertical discourse must give the
learner access to recognition and realization rules for the relevant pedagogic
discourse. It is a necessary condition for discourse led pedagogic practice that
the teacher has an adequate command of a particular code, or pedagogic
discourse.

But the approach proposed here suggests that discursive regulation does not
exhaustively describe pedagogic practice, even when such regulation is
dominant. Furthermore, it cannot be assumed that all transmission practices
pertaining to vertical discourse are successful in that they give access to the
recognition and realization rules for a particular pedagogic discourse.

Secondly, the review argued that the separation of time and space in
Bernstein’s theory cannot be sustained theoretically and that there is a need
for development of the theory to take into account an integrated
understanding of space/time. It was argued that space (understood as
space/time) is not inert and produced, and that there is a contingent and
mutually constitutive relation between the social (incorporating the discursive)
and the spatial. With regard to pedagogic practice, this suggests that there is
a contingent relation between discursive regulation and contextual practice rhythms.

Bernstein’s approach contributes to this analysis an elaborated account of the elements of practice (selection, sequencing, pacing, evaluation and framing of social relations) and of the potential discursive regulation, or framing, of these elements. This account unpacks the internal mechanisms of the translation of pedagogic discourse into pedagogic practice.

Circulation of strategies within a practice community as organising referent

Chapter three reviewed the approach of situated activity theorists, for whom the external referent for practice is a reservoir of practices constituted through interaction within a community of practice, selectively legitimated by social authority and reified in rhythmical space/time and technology related practices. At the internal level of practice performance, teachers construct a repertoire of practice strategies in relation to the shared reservoir.

Critical engagement with this approach, reviewed in chapter three, suggests that the influence of the form of the discourse on pedagogic practice (or discursive regulation) has not been adequately explained. Situated activity theorists recognize that acquisition is not only mediated by interaction with others, but also with specialized or vertical knowledge systems and with material objects or technological and space/time systems. However these accounts do not explain how the particular form of the pedagogic discourse, or curriculum, is recontextualized within the circulation of practice strategies within a practice community such as a school. In other words, there is no differentiation between the circulation of practice strategies that are discursively regulated and those that are not.

A school practice community may circulate discursive principles of practice generation, rather than segmental practice strategies. In this case the circulation of practice strategies would be subordinated to the communally
held or socially privileged understanding that pedagogic practice is a transformation of pedagogic discourse. Research into such communities would extend our understanding of the logic of practice development, and would begin to address the question of how the particular form of the pedagogic discourse, or curriculum, is recontextualized within the circulation of practice strategies within a practice community such as a school. The framework developed here differentiates between the circulation of discursively regulated strategies (external framing) and the circulation of segmental practice strategies (external control) within an account of hybrid pedagogic practice.

Situated activity theory contributes to this analysis an elaborated account of the circulation of practice strategies within a community of practice and the ways in which the practice of the individual may be regulated by such circulation. In this study, the school is taken to be a practice community that incorporates sub-communities (such as subject departments). The co-location of teachers within an institution is relevant not only in that it potentially facilitates interaction, but also in that teachers are subject to the same regulatory social authority and participate in the same institutional practice rhythms. However, practice strategies may also be derived from the circulation of practices in extended practice communities outside of the institution, for example through meetings with teachers in other schools or exposure to practices in teacher education, textbooks and so on.

Repetitive practice routines as organising referent

Chapter four reviewed Lefebvre's theory, in terms of which the social (incorporating discursive and interactional) and the material (space/time and technology use) features of social practice are seen to be mutually contingent in practice performance. Unlike the other two approaches, this approach starts from the position that social practices are hybrid, and that space/time and technology use constituents of social practices are not only produced by and expressive of discourse and interaction, but are also constitutive thereof. Even where the external referent for practice is a specialized or vertical discourse,
this referent is not seen to be fully regulative of practice and its context. Instead, social practice emerges from a tension between a supervening discourse or practice model, on the one hand, and established routines and habits that respond to contextual histories and co-ordinate contextual affordances.

In Lefebvre's view, all social practice is rhythmic, and there is always both difference and repetition within the rhythm. However, rhythmanalysis draws attention to the specific relation between repetition and difference in a particular mode of practice. Discursive regulation or the introduction of practice strategies that circulate within a practice community involves the insertion of purposeful difference into the repetitive frame of pedagogic practice. Thus repetition - for example of timetabled lessons - both supports and constrains difference. In other words, reference to the generative principles of a pedagogic discourse or to a reservoir of practice strategies generates difference in relation to a rhythmically anchored pattern of repetition. These references may supervene repetitive everyday rhythms, but must nevertheless be established in relation to them.

In terms of rhythmanalysis, pedagogic practice that gives learners access to recognition and realization rules for a vertical discourse must assert and insert externally regulated difference into contextually based repetition. In so doing, the teacher constitutes practice performance in relation to the form of the discourse or to conventions circulated in the community of practice (as external referent) and in relation to the routine patterning of space/time and technology routines within the context of practice. This is an adaptive, contingent and dialectic process in which practice is both productive of and responsive to broader practice rhythms within the environment. Successful transmission of vertical (or specialized) discourse would be premised on the systemic specialization and subvention of practice rhythms to discursive purposes, but this must be achieved, is never complete and cannot be taken for granted.
On the other hand, repetition led practice is practice in which repetition subsumes difference. Within repetition led pedagogic practice, repetition does not support the activity: it constitutes the activity. A particular pedagogic practice strategy would necessarily have originated as a transformation of pedagogic discourse, but in the case of repetition led practice this strategy has become fossilized and attenuated through repetition. In this case, pedagogic practice is no longer adapted to particular discourses and texts. Instead, texts are inserted into repeated and habituated pedagogic routines. For example, a teacher might initially place notes on a blackboard as part of a more complex series of steps toward giving learners access to a particular text, in a context where learners do not have textbooks, but in time the teacher may routinely and habitually constitute transmission as text copying without consideration of the specificity of a particular text or discourse. Repeated practice routines require less explicit, more tacit communication because repetition is predictable to learners and does not require explicit instruction. Less communication is required to direct and sustain the activity because it is regulated more by past patterns and contextual signals than by current and explicit direction. Within such practice rhythms

... the resumption of the cycle [reprises cycliques] depend less on a sign or a signal than on a general organisation of time (Lefebvre 2004 p. 39).

Thus rhythmanalysis differentiates between practice that subordinates and specializes repetition to difference (practice that is constantly renewed) and practice that subordinates and incorporates difference (new texts or practice conventions) into repetition (fossilized practice strategies). In the latter case, a new text may be inserted into established practice routines but the routines would not be altered to reflect the specificity of the text and the discourse from which it is drawn. This results in similarities of practices across texts and discourses.

The relation between difference and repetition brings into focus the relation between possible organising referents for pedagogic practice. Difference is generated by the subvention of contextual exigencies to discursive or social
regulation, while repetition is generated by the need for an ongoing co-ordinating response to such exigencies. In this relation practice is always hybrid.

The practice rhythms of individual teachers are constituted to articulate with broader patterns of practice rhythms within the environment, involving a web of technology and space/time use practices. These include predictable or unpredictable organisation of time, space and movement and the availability or unavailability of particular interrelated technologies and resources. Thus every teacher takes into account whether or not learners will be present and punctual, whether or not blackboards, textbooks, photocopying facilities, libraries, storage facilities and other resources are available and accessible, what other teachers are doing and so on. Together, these factors constitute a complex, interrelated set of affordances that require a complex co-ordinating response from teachers and invite teachers to proceed in one way rather than another. The very complexity of this process inevitably means that practice strategies that successfully co-ordinate these affordances within a particular institutional context are likely to be repeated as an ongoing response to that context. Thus repetition and co-ordinations are wedded together in contextual practice rhythms.

Lefebvre contributes to this analysis an elaborated account of practice rhythms, specifically with regard to (a) the relation between difference and repetition in practice, (b) the ways in which the affordances of space/time and technology related practices are co-ordinated in practice, and (c) the reproduction of these co-ordinations through habit, routine and repetition. Rhythmanalysis foregrounds ways in which the body, movement, space/time and technology use are implicated in practice.

**Hybrid practice**

On the basis of critical engagement with these three approaches, I suggest that each can be connected to the others by means of the notion of pedagogic practice as a hybrid practice. Hybrid practice refers here to practice that has
three aspects – discursive, interactional and repetitive - and that has the potential for any one of these to be the dominant referent.

The argument developed in this study is that the relationship between the discursive, social and material aspects of pedagogic practice is not stable. Any one of the three aspects of practice can be dominant over and regulative of the other two, and this relation can shift. Hybrid practice is constituted in the relation between repetition and difference, in the degree to which repetition is harnessed to the insertion of difference, and in the reference for difference being either pedagogic discourse or segmental practice strategies.

This position is not dissimilar to that of Thévenot (1999) who argues that not all practices - indeed, not all versions of a particular practice activity - have the same regulative referent. He gives the example of the social practice of tidying or ordering a room: A room can be ordered for one’s own use, or for the use of visitors, or it can be ordered in such a way that codified legal safety standards are met. In each case the evaluative criteria and form of relevant knowledge base differs, along with the level of competence of the person tidying the room. In this way he identifies three ‘pragmatic regimes of engagement’. They are:

- A regime of familiarity, which is local, idiosyncratic and likely to be constituted as habitual, repetitive, corporeal action involving space/time and technology rhythms. In this case the evaluative criteria are entirely segmental, contextual and based on personal convenience.
- A regime of regular planned action, which conforms to social conventions, drawing its evaluative criteria from such conventions or shared standards circulating within a community of practice.
- A regime of justification, which must conform to and draw its evaluative criteria from the principles of a codified symbolic system.

The possibility of the third practice regime - habitual, corporeal action involving repetitive space/time and technology rhythms - which is neglected by both Bernstein and Lave and Wenger, emerges in Thévenot’s framework. This third
mode of practice takes as its dominant referent neither the grammar of the discourse, nor strategies made available through, or generated through participation in, social interaction. Instead, practice is regulated by responsiveness to contextual corporeal and material possibilities, affordances and constraints and given continuity by repetition and habit.

Importantly, for the purposes of this study, the same activity at the same site of practice (in this case tidying a room) may be realized in all three these modes, depending on the evaluative criteria that are brought to bear in a particular context. This applies also to pedagogic practice in schools. The dominance of any one regime depends on the extent to which the state has established the reach and effectivity of the pedagogic device, on the one hand, and the extent to which a robust practice community has developed in the school, on the other. It is the control of evaluative criteria, rather than the site of practice, that regulates the form of practice. It cannot be assumed that there is external social or discursive regulation of evaluative criteria in any given classroom, school or education sub-system. A pedagogic device that does not have a strong regulatory reach into the classroom through external classification and framing relegates evaluative criteria to the individual teacher in the classroom, without support and vulnerable to unspecialized contextual exigencies. Similarly, a practice community that is not robust leaves the teacher isolated from a broader reservoir of practices to inform and mediate practice development.

Thévenot’s example relates to a practice that is typically constituted within a regime of familiarity. Tidying rooms is not typically regulated by codified context independent legal knowledge. In this example, the organising referent shifts from contextual rhythms to a context independent code, in particular conditions. On the other hand, pedagogic practice is typically taken to fall within a regime of justification in relation to a discursive code. But by the same token, there are conditions under which pedagogic practice can be dislocated from the knowledge base with which it is normally associated and become more closely embedded in contextual rhythms. Such conditions would typically be an
ineffective pedagogic device, an inactive practice community and an inadequate grasp of the knowledge base by teachers.

The specificity of the knowledge base of pedagogic practice in educational institutions is not irrelevant, in this conceptualization. Like Bernstein, Thévenot foregrounds the discursive knowledge base as a factor that differentiates modes of practice. Unlike Bernstein, however, Thévenot suggests that the form of the knowledge base may vary for a particular practice at a particular practice site.

**Hybrid practice at the level of the school**

Thus far, the development of a notion of hybrid practice has been related primarily to pedagogic practice at the classroom level. However, the general approach is also applicable to administrative and technical practices at the level of the school: Just as pedagogic practices comprise all three of these aspects of which any one may be dominant, so do technical and administrative practices at the level of the school.

At the level of the school, there is always a degree of discursively regulated control - or external framing - arising from the accountability of the school to system wide curricula and examination systems. But not all control at the level of the school is discursively regulated, as was discussed in chapter two and earlier in this chapter. School authorities also draw on the circulation of practice conventions in a broader practice community, or constitute practices as repetitive responses to contextually based space/time and technology affordances. As in the case of pedagogic practice, one of these facets - external framing, external general control or responsiveness to contextual exigencies and rhythms - would be dominant within the emergent pedagogic culture of the school.

Regardless of which aspect of control at the level of the school is dominant, this control may be centralized and strong or decentralized and weak. Strong centralized control, or framing, is premised on the presence of a robust
practice community in which influence is mediated by interaction within the school, whether this is hierarchical or egalitarian.

Three modes of pedagogic practice

On the basis of the conceptual framework outlined above, this analysis projects three ideal typical modes of classroom transmission practices and related school practices. The analysis will aim to position and describe the data relating to practices of the teachers at the two schools in relation to the three modes.

The modes of pedagogic practice are presented here as ideal type descriptions, in the sense that they are not necessarily empirically realized as pure forms. In actual schools, different modes may predominate in the practices of different teachers, and the mode evident in the practices of a particular teacher might shift from one activity, or even one moment, to the next. The value of the distinction is analytic, in that it enables us to identify dominant patterns and shifts, and also to evaluate the effects of each mode in relation to a particular pedagogic purpose.

The three modes of pedagogic practice are referred to here as discourse led, convention led and repetition led pedagogic practice. Each mode of pedagogic practice has multiple levels, or scales, of which two are considered here: the level of the individual teacher’s practice performance in the classroom and the level of interactions within a practice community within the broader school environment. At both levels, the analysis is concerned only with transmission; there is no attempt to describe learner acquisition. Learner practices are of interest only in so far as they are regulated by transmission practices.

The main focus of the analysis relates to difference and repetition in pedagogic practice. Difference in pedagogic practice is derived with reference either to a pedagogic discourse or to the circulation of segmental practice strategies in a practice community. Repetition is anchored in contextual
practice routines and the co-ordination of contextual structures and affordances. Difference - in the form of new socially or discursively regulated practice strategies - may be fossilized and subsumed into repetition. When new practice strategies become subsumed into repetition in this way, they potentially become generalized across practice and are no longer adapted to specific texts or even to specific pedagogic discourses.

Activities within all three modes of practice have in common the selection of a pedagogic text. Text selection is discursively regulated to the extent that the text can be recognized as relating to a particular pedagogic discourse. The selected text typically takes the form of a topic or content segment embedded in a task or series of tasks. This might be expressed explicitly (for example: 'Write an essay on Capitalism; Add $5a^2 - 2ab + 4b^2$ and $-2a^2 + ab -3b^2$') or implicitly (for example when the activity takes the form of a discussion and learners know from prior experience that they are expected to volunteer contributions or answer questions).

While text selection might be discursively regulated, it does not necessarily follow that the other elements of pedagogic practice (sequencing, pacing, evaluation, regulation of social relations and regulation of the material, spatial ordering) are discursively regulated, or framed. In so far as pedagogic practice involves selection from a (potentially) vertical pedagogic discourse, but does not involve regulation of the remaining elements of pedagogic practice in relation to the grammar of that discourse, it is disconnected from the generative principles of the pedagogic discourse and access to recognition and realization rules for the discourse is attenuated. The difference between modes of practice relates not to text selection - which is generally though not necessarily discursively regulated - but to text mediation.

The analysis does include consideration of timetabled periods of interaction between teachers and learners, or learners and learners, during which no selected text is presented, i.e. periods during which there is no transmission. The purpose of this inclusion is to set up a continuum of modes of practice from a strongly discursively regulated, or discourse led, mode, through
discursively attenuated modes (convention led and repetition led) to a
discursively ‘empty’ mode of teacher learner interaction with no selected
pedagogic text. In Bernstein’s terms, the latter end of the continuum describes
a situation in which there is a regulative discourse without an instructional
discourse. However, in line with the argument I have developed thus far,
teacher control of learner behaviour may or may not take as its dominant
organising referent a context independent regulative discourse. In other
words, forms of control may be responses to contextual affordances fossilized
as repetitive routines rather than being derived from justifications based on
discursive principles.

At the level of the classroom, the analysis aims to establish which external
regulative referent is dominant in relation to aspects of framing other than text
selection: pedagogic discourse, practice conventions circulated within the
practice community or habituated repetitions of space/time and technology
use rhythms. An ideal type description for each of these modes of practice is
developed below.

At the level of the school, the analysis aims to differentiate between
discursively regulated external framing and non-discursively regulated control.
The latter takes as its organising referent the circulation of practice strategies
in a broader practice community or patterns of space/time and technology use
that pertain in the school and the broader environment. At this level, the
analysis differentiates between two domains. The first, which I shall call the
technical domain (Tyler 1988), is the system of ‘departments’ that support,
develop and regulate pedagogic practices in the classroom. It is in this
domain, for example in department meetings or in informal communication
between teachers in the same department, that the mode of pedagogic
practice performance of the individual teacher articulates with the dominant
mode of pedagogic practice performance of the department and/ or the
school, specifically as regards the relation between pedagogic practice and
pedagogic discourse.
The second domain at the level of the school, which I shall call the administrative domain, is the administrative system of management committees and other structures. The administrative domain regulates social and space/time and technology practices across the institution as a whole and provides a framework for activities in the departments and in the classroom. Pedagogic practices in the classroom and in departments are dependent on the administrative domain for specialization of space/time and technology, specifically for the orientation of these practices to pedagogic purposes through regulation of boundaries (external space/time classification) and control of rhythm (external space/time and technology use framing). The administrative domain is less strongly discursively regulated than is the technical domain, in the sense that it is more concerned with tasks that are often not discursively regulated, such as the distribution of resources (Bernstein 2000). It is therefore in this domain that the space/time rhythms and material and technological resources of the school must be specialized to pedagogic purposes. This specialization must be achieved and cannot be assumed. On a day to day basis, in the context of the schools in this study where formal administrative or management structures are not developed or elaborate, the principal and other senior managers tend to constitute the administrative domain of the school.

Some structures, such as the staff ‘in committee’, bridge these two domains. The pedagogic culture of the school, and the degree to which interactional and space/time and technology practices are specialized to pedagogic purposes, is evident in the focus of activities within these bridging structures.

**Mode one: Discourse led practice**

Discourse led (or regulated) pedagogic practice is characterized by pedagogic communication (whether direct or indirect) and activities that are oriented towards giving the learners access to recognition and realization rules for a specific text within a specific pedagogic discourse. This orientation towards the generative principles of the pedagogic discourse inserts difference
between this and other activities into a context of repetitive practice routines and structures.

The following vignette provides a description of a lesson (constructed from lesson observation notes) that would be classified as discourse led:

**Vignette One: Mathematics**

When the class arrived, the teacher was waiting. The words: ‘Theorem: The exterior angle of a triangle is equal to the sum of the opposite interior angles’ were written on an otherwise clean blackboard. As soon as the group had entered, the teacher quickly returned a set of notebooks then announced the lesson text by reading the sentence on the blackboard. He proceeded to lead the class through an explanation of the theorem by asking a series of questions. Each step of the explanation was recorded on the board as an equation and a diagram showing the construction. Through careful sequencing, a conceptually logical explanation was constructed leading to a fully explicated formula or theorem, \( ACD = A + B \), as an end point.

The teacher took time to check, through questioning, whether learners understood and adapted pacing to learner responses. He used questions such as ‘How do we know that …’ to elicit explanations for each move from learners on the basis of their prior knowledge, indicating whether these were correct or why they were not correct, and providing explanations himself when learners seemed unable to do so. He explicitly drew attention to discipline appropriate vocabulary through comments such as ‘Let us use mathematical knowledge and terms’ and made repeated comments relating to appropriate procedure such as:

T: Why is \( C_1 \) equal to \( B \)?
L1: Corresponding angles.
T: You know I don’t want telegrams
L1: \( C_1 \) is equal to \( B \) because they are corresponding angles
T: No-one should be writing. Angle \( C_2 \) is equal to what?
L2: Angle \( C_2 \) is equal to angle \( A \).
T: What is the reason? There must be a reason.
L3: Because they are alternate angles.
T: You haven’t finished. When do alternate angles occur? Pamela said it well. Finish it for her.
L4: Because \( AB \) is parallel to \( CE \)

During the explanation, the teacher insisted that all books remained closed, but when the explanation was concluded the teacher instructed the class to do an exercise from their textbooks. The exercise required learners to apply the theorem.

Interaction between the teacher and the class as a group was sustained throughout most of the lesson time. Non text-related interactions were avoided and discouraged. Even apparently important information volunteered by a learner – that a member of the class was carrying a knife – was brushed aside by the teacher. Thus ‘disciplining’ or regulation of learner behaviour by the teacher was largely directed towards removing distractions from engagement with the lesson text.

The momentum and focus of the lesson was threatened by interruptions from ‘visitors’ to the class, but the teacher avoided engaging with the visitors and insisted on retaining focus on the lesson text. The teacher utilized the full lesson time available, in spite of the fact that the end of lesson (and end of day) bell rang earlier than the scheduled time. The teacher ignored the bell and proceeded to complete the lesson in the time allotted by the timetable.
At the internal level of practice performance, discourse led practice harnesses framing strategies to the specific purpose of transmitting a particular text within the ambit of a particular pedagogic discourse. Framing ‘transforms’ pedagogic discourse into framing practices. Within the constraints of external framing and control, pedagogic activities are structured in ways that are adapted to communication of the grammar of a particular pedagogic discourse and to the transmission of a particular text within that discourse. This mode of practice relies on elaborated teacher-learner interaction to make explicit, at key moments within activity cycles, the relation of the particular lesson text to the symbolic structure of the pedagogic discourse, to link current learning to past learning and to bring evaluation criteria to bear on learner productions. In other words, activities are oriented towards giving the learners access to recognition rules (Bernstein 1996 p. 31 ff, 106 ff).

Teacher communication that makes explicit the relation of the text to the generative principles of the pedagogic discourse may take the form of face-to-face interaction or it may be structured into learning materials. It is also possible that such communication takes place well before or after the activity to which it relates. In some situations, such communication may be purposefully withheld for the duration of an activity such as a test.

The harnessing of framing strategies to the generative principles of a particular discourse as realized in relation to a particular text would be evident at multiple levels, from the year plan to micro-interactions within an activity. In the context of the data for this study the most salient realizations were present (or absent) at the level of interactions within activities.

In the lesson described in Vignette One, the teacher used a question and answer strategy to lead learners through the steps required for a particular task. He recorded each step as a diagram on the blackboard and signalled that a particular geometry task required a particular procedure. The interaction was shaped by the sequential logic of the explanation. The teacher made explicit what was required in dealing with a particular text in the context of a particular discourse in comments such as the following:

T: In order to answer this we need to make a construction. Write everything you know before you come to a conclusion.
In discourse led pedagogic practice, the teacher makes explicit evaluative criteria derived from the grammar of the pedagogic discourse. This involves addressing 'why' as well as 'how' questions, explaining why a learner response was or was not correct in terms of the grammar of the discourse, making overt the links between a particular content segment and the broader content and principles of the instructional discourse and modelling or requiring use of specialized terminology. In other words, the teacher gives the learner access to realization rules through communication of criteria for evaluation.

In Vignette One, the teacher insisted on the appropriate mathematics terminology, and on answers based on mathematics principles. Similarly, in the following example from a science lesson, the teacher insisted that the appropriateness of a learner response depended on whether the response could be defended with reference to understanding of the relevant scientific principle.

T: It is raining. Does the barometer reading get high or low?
L1: The barometer reading is low.
T: She says the barometer reading is low. Do you agree with her?
   Is the reading high or low and why are you saying that?
L2: Low.
T: So you agree with her? Why?
L2: Because the pressure will be low.
T: Pressure is low so the reading is low. Do you agree with her?
   (Class is silent).
T: We talked about the water vapour. What makes the reading high or low?
L3: Because there is more vapour in the air.
T: Yes. It rains water. It means there is more water and more water vapour in the air.
SO, is the pressure high or low?

In this mode of practice there is close articulation between regulation of the social order and transmission of the particular pedagogic text and the particular pedagogic discourse. While the teacher does require procedural conformity and social order, these requirements are articulated with the discursive purposes of the lessons. Learners are not told simply to sit still or to take out their books, for example, but to sit still or take out their books so that an activity could be completed, or to first engage with an explanation of principles and then apply these principles in an exercise.

During the lesson described in Vignette One, the teacher encouraged learners to ask and answer questions, saying: ‘Be free in my class.’ At the same time, he ensured that learners did not engage in any activities that were not related to the particular lesson activity. They were not allowed, for example, to take out mathematics textbooks or open their notebooks until the initial, explanation phase of the lesson was complete.
Space/time and technology related practices (including use of resources such as textbooks) are harnessed to pedagogic purposes, for example tables might be arranged in circles to facilitate group discussion on the basis of a belief in the value of peer mediation.

Spatial coding of display surfaces in classrooms provides a medium for expression of pedagogic mode. Discourse led pedagogic practice is expressed in discourse specific wall displays.

In Vignette One the teacher asked learners to take out textbooks and do an exercise. The majority of learners did have textbooks with them, and did proceed to do the exercise. While this might seem unsurprising, in the context of this school it was very unusual that learners in a class would all have the textbook for a subject, and that they would all have brought their textbook to school on a particular day. In the school where this lesson was observed (School B) textbooks were generally only issued to learners who had paid fees. In only one of the other observed lessons were learners asked to take out and use textbooks, and in that lesson learners did not have books with them. In this context, having textbooks available was an achievement that required some organisation. (Teachers did, however, bring books or photocopied notes to the class in four other lessons, and learners brought a set of photocopied notes that had previously been issued to them to one lesson).

In this case, the textbooks were available because the teacher had ensured that they had been issued to learners, and learners brought them to school because they knew from experience that textbooks would be required in mathematics lessons.

Teachers did not have full control of teaching spaces. A particular teacher taught most but not all lessons in a particular room, rooms were used by more than one teacher and lesson venues were sometimes changed. Most wall displays were sparse and generic, rather than rich and discourse specific. In spite of this, the teacher referred to in Vignette One had made some effort to display posters specific to his other teaching subject - science - on the walls of the science laboratory in which this lesson was taught. Neatly ordered and cared for science equipment was also available. The visual coding of this room - a laboratory - was more discursively specialized than that of any of the other rooms observed in the two schools.

Discursive regulation of framing can potentially result in activities with relatively complex, layered, multi-step internal structures.

In the extract from the transcript in Vignette One, teacher communication operated at multiple levels. The teacher elicited reasoning and specialized language, while at the same time regulating learner physical behaviour, setting up a question and answer format interaction and prohibiting writing.

In this lesson the learners were required to engage with the text in the form of verbal interaction with the teacher, and then to do a written exercise based on the knowledge derived from this engagement. This was the only observed lesson in which this double step progression involving elaborate verbal interrogation of a text followed by a clearly structured written application was evident.
The potential complexity of discourse led pedagogic activities arises from the supervention of difference over repetition in this mode. A teacher working across the repetitive grid of term cycles, weekly cycles, daily cycles and lesson periods within an environment that offers class groups, classrooms, blackboards, chalk, notebooks, pens, photocopying facilities, a municipal or school library and so on can orchestrate these elements to support a complex, layered activity. Such pedagogic practice might potentially involve larger activities with smaller sub activities of varying types across varying periods of time. Metaphorically speaking, the melody of the activity harnesses the rhythm of the context. Again, it is the external referent or the grammar of the pedagogic discourse that generates and regulates such difference - that produces the melody, as it were.

Variations in pedagogic practice across discourse led lesson activities

Where pedagogic performance is discourse led, there is likely to be considerable variation between framing practices across lessons, as different pedagogic discourses and different texts generate different framing practices.

There were too few lessons, categorized as discourse led, in the data to offer comparisons of variations within a subject or within the practice of one teacher. However, the two lessons that were categorized as discourse led stood out in comparison with all the other observed lessons. They were the only lessons in which there was evidence of careful and logical inductive progression from a problem to a conclusion, throughout lesson activities. This progression was appropriate to the texts (a theorem and a definition) within the specific pedagogic discourses (mathematics and science).

Mode two: Convention led pedagogic practice

Convention led pedagogic practice is characterized by teacher communication (whether direct or indirect) that is oriented towards generating pedagogic activities that are specific to the transmission of particular texts within specific pedagogic discourses. However, activities are not geared towards giving access to recognition and realization rules for particular pedagogic discourses. The text that is to be transmitted is recognisably derived from the relevant pedagogic discourse. However elements of pedagogic practice other than text selection (sequencing, pacing, control of
the social order and control of space/time and technology related aspects of
the activity) are not specialized to the discourse but are oriented towards the
procedural form of the activity convention. There is a greater reliance on
everyday knowledge and terminology. Criteria for evaluation of learner
productions are either not provided at all or are derived from the procedural
form of the activity itself. The introduction of a particular activity for the
transmission of a particular text inserts difference into a context of repetitive
practice routines and structures.

In convention led pedagogic practice, strategies are derived from: a) finding
out 'what works' in the context of the classroom, b) 'borrowing' segmental
practice strategies available within the reservoir of a practice community and
c) adopting practice strategies that are mandated or approved by those who
hold authority within a practice community. However, these ideas are derived
segmentally from a reservoir of practices within a practice community rather
than from a process of transformation of the pedagogic discourse into
interactional framing.

Practice strategies are often associated with a particular pedagogic discourse.
For example, 'discussions' are conventionally associated with history while
doing an exercise comprising a series of 'problems' is generally associated
with mathematics. However, a discussion on a history related topic may or
may not be oriented towards giving learners access to the generative
principles for the discourse, defined in terms of the mode of enquiry for history
as a pedagogic discourse. In other words, the teacher may or may not use the
discussion to elicit or model specialized competences such as, for example,
critically interrogating evidence, building arguments or identifying analytic
points of view. Practice conventions transmit a selected text in a way that
horizontalizes and attenuates the pedagogic discourse. The degree of
attenuation is not in the selection of the text. It is in the degree to which the
activity in which the text is embedded is directed and adapted towards
communicating the generative principles of the pedagogic discourse, both
within the activity and in the relation between this and other activities.
As will be discussed below, convention led pedagogic practice may be associated with strong or weak external control, or with weak external framing. However, it is unlikely to be associated with strong external framing, as this would generally mandate discursively regulated pedagogic performance.

The following vignette provides a description of a lesson (constructed from lesson observation notes) that is classified as convention led:

**Vignette Two: A History Lesson**

The teacher started the lesson as soon as the class group had settled. He introduced a topic as an example of the sort of topic that might be referred to in the cartoon format section of the upcoming examination. The topic was: The social consequences of the introduction of capitalism in South Africa. The lesson took the form of a free ranging ad lib narrative by the teacher on the effects of migrant labour and the experiences of people from rural areas who move to town to work on the mines. In his introduction, the teacher suggested that learners could think about the topic in relation to the example of a migrant labourer who left his family to work in town.

T: People no longer pay taxes in cows, but in money. That’s how capitalism was brought about. I want the social consequences [of] the cartoon, for example migrant labour, the father leaves his home and family and goes away. He has to rent in town. So town life is brought in. There is a difference between town life and rural life.

L1: Yes, accents.

L2: *(To L1)* You are doing nothing, my friend.

T: What is the opposite of a mugu? What is a Bari?

L3: Clever.

T: Don’t call names. For example, Professor Satyo grew up in Lady Frere. He did a lot of research. Are you going to say uvalekile?

L4: He made himself clever by writing books.

T: That means he is not a bari.

*From this point on, the narrative and interactions focused primarily on differences between town and rural life, the different social values associated with each, and the meaning of the term 'bari'.*

T: When the fathers go to town they change their lives – stop wearing red socks. When we talk about social results it is people’s lives that change. For example fathers used to drink traditional beer, now they drink brandy. People changed their behaviour. Some became criminals. We are not at peace in town. In rural areas people are at peace. They have respect for human life and nature, for example in town young children can shoot one another and kill. There is no respect for human life. These are some of the disadvantages of capitalism. The advantage is our country is rich, but social life is poor.

*The narrative meandered to and fro across historical periods, and the concept of capitalism became an umbrella term to refer to a wide range of historical phenomena including apartheid, racism and urbanisation:*

When fathers leave, mothers work hard. When fathers return, they stop respecting their lives and think they are clever. These are the things that the Mandelas are trying to correct, through reconciliation. They want us to go back to a normal life.
Both teacher and learners drew strongly on their own experiences and perceptions of people living in urban and rural areas. Throughout the discussion, there were no examples of, or further references to, cartoons or any other historical sources, materials or enquiry strategies. Instead, the interaction fell into conventional discussion mode.

After thirty minutes (of a forty five minute lesson) the teacher concluded the discussion and instructed the learners to read (i.e. study) their notebooks while he walked around the class marking the most recent piece of written work in the books, dated seven weeks earlier. Most of the learners chatted amongst themselves, and after a few minutes one of the learners started a general class discussion about a planned social class outing. This occupied the remaining time.

(Extracts have been translated from Xhosa)

In this mode, pedagogic activities take conventional, segmental procedural forms, such as a discussion, a comprehension, a practice type exercise or a copying exercise. A teacher might, for example, use a worksheet primarily because the head of department approves of it or because a colleague passes it on to her. The activity does not constitute a phase in a larger series of linked activities but rather stands alone.

The activity in Vignette Two took the form of a teacher narrative incorporating some voluntary learner contributions. The internal structure of the narrative and discussion was loose and did not reflect the principles of history as mode of enquiry, for example periodization, concept definition and linkages to other related historical knowledge.

The selected text is discursively regulated in the sense that it is recognisable as having been drawn from a particular pedagogic discourse. However the internal structure of the text, specifically sequencing within the activity that carries the text, is not closely articulated with the symbolic structure of mode of enquiry for the pedagogic discourse. Instead, the internal structure and coherence of the activity are governed by its conventional form. The text is not elaborated with regard to the principles of the pedagogic discourse; it tends to remain inert and undeveloped, lacking internal focus, structure and progression.

While there was a loosely defined content theme, there was no clear progression within the teacher's narration and discussion described in Vignette Two. Instead, the internal logic of the narration appeared to follow ad hoc associations or contributions from learners.
Evaluation or imparting criteria for appropriate or inappropriate learner productions is directed towards conformity to the procedures associated with the activity rather than towards recognition and realization of the grammar for the pedagogic discourse. In the lessons that were classified as convention led, discursively regulated criteria for evaluation of learner contributions were either completely absent or, as in the case of the lesson described in Vignette Two, dispersed, weakly articulated and incoherent.

In the lesson described in Vignette Two, modelling of discourse specific competences was very weak and dispersed. For example, the teacher mentioned that a cartoon format question in the examination might relate to the topic under discussion, but made only the following comments about the analytic or procedural approach required in answering cartoon format questions.

T: The cartoon is about social consequences. We have only done economic consequences. … It needs common-sense knowledge. I am giving you a cartoon so that you can interpret it.

Towards the end of the lesson the cartoon is mentioned again:

T: Now I am going to give you a cartoon. You'll just interpret it and write what you think it means. Then you pass and go to the next class.

The concepts that formed the basis of the lesson - capitalism and social consequences - were defined and explained in extremely loose and cursory ways:

T: People no longer pay tax in cows but in money. That's how capitalism was brought about.

Capitalism was mentioned again a number of times, but there was no further definition or explanation of the concept. Instead, the teacher gave the following as examples of practices that caused or resulted from capitalism: White children calling an elderly man 'boy'; English colonizers being fortune seekers, people being searched on trains, and hawkers being robbed.

Only the following explanation of the term 'social results' is offered:

T: When we talk about social results, it is people's lives that change. For example, fathers used to drink traditional beer, now they drink brandy.

All learner responses elicited in the discussion reflected learners’ common sense knowledge and experience of urban and rural life. The only evaluative criterion offered by the teacher, with regard to these responses, was the suggestion that learners should not use derogatory terms to describe people from rural areas. Thus learner responses were evaluated with regard to the conventions of polite conversation, but not with regard to appropriate productions associated with history as pedagogic discourse.

As in discourse led practice, convention led pedagogic practice does require explicit communication between teacher and learners at key moments in the activity cycle. To the extent that particular practice conventions are selected
anew for the transmission of each text, the teacher must manage the interaction in relation to the activity, and this requires explicit communication regarding appropriate procedures. Over and above this, the particular and usually familiar form of the activity determines the degree and nature of the interaction between teacher and learners.

In the activity described in Vignette Two, there was rich and elaborate communication between teacher and learners as the teacher orchestrated the narration and discussion.

Regulation of the social and physical activities of learners is directed towards the lesson activity rather than towards social order as an end in itself.

In the lesson described in Vignette Two, the learners participated in, enjoyed and were amused by the lesson activity. While learners felt free to contribute to the discussion, the teacher was clearly using his control to direct the discussion and to ensure that all learners were engaged and attentive.

Space/time and technology use are specialized to the format of the activity.

In the lesson described in Vignette Two, the narrative and discussion was constituted as a purely verbal interaction, with no reference to resources and no requirement that learners do any kind of homework or written activity. The activity did not occupy the full lesson period, but when it ended there was no further pedagogic activity. Learners were free to occupy themselves as they wished in the remaining time. The narration was not seen as a phase within an ongoing process of doing history, but as a self-contained, one dimensional, bounded activity: a conversation.

Variations of pedagogic activities across different lessons in convention led pedagogic practice

The circulation of practice within a school depends on the robustness of the practice community, in terms of how much interaction relating to pedagogic practice takes place, and on whether social relations are hierarchical or egalitarian. Robust practice communities enable teachers to extend and renew their repertoire of practice strategies. In so far as the reservoir of the group is coterminous or compatible with that of the institution as a whole,
individual practices would be supported by the space/time and technology use rhythms of the institution. On the other hand, inactive practice communities do not provide a resource for ongoing renewal of the teacher's repertoire of practice strategies. In this case, teachers are more likely to develop idiosyncratic transmission strategies or to repeat habitual or fossilized strategy conventions derived from the practice community at some point in the past.

A very narrow range of transmission practice conventions was evident in the five lessons categorized as convention led in this study. These conventions were the class discussion, the group discussion with report back and reading a text followed by oral comprehension type questions relating to the text.

Mode three: Repetition led pedagogic practice.

Repetition led pedagogic practice absorbs a new text into a routine and repetitive activity pattern. While text selection is discourse specific, the form of communication and activity through which the text is mediated is not specific to the particular text or discourse. Instead, the routine activity is repeated for each text regardless of its discursive source; the text is adapted to the routine rather than the other way around.

The following vignette provides a description of a lesson (constructed from lesson observation notes) that would be classified as repetition led:

Vignette Three: An English lesson

When the learners arrived for the lesson, they found the following exercise on the blackboard:

John had already won the hearts of the Americans. (The hearts of the Americans …)  
‘Where will you go Mary, when you are finished?’ the teacher asked. (The teacher asked …)  
President Mandela addressed the people. He then left Pretoria. (Having addressed …)  

The teacher gave no explicit instructions; initially he did not speak at all. The learners spent a few minutes writing the sentences in their notebooks, then occupied themselves in various ways for about twenty minutes. The teacher spent most of the lesson walking around between the desks, looking at learners’ notebooks without comment. As the time passed, most learners began chatting, sleeping, reading newspapers and doing work for other subjects. On two occasions the teacher spoke about learner behaviour. On the first occasion he said to a learner ‘Temba, write’, and on the second occasion he said to the class as a whole: ‘Who is talking?’ and added, to an individual learner: ‘Have you finished writing?’
After 25 minutes the teacher wrote the correct versions of the transformations on the blackboard. He then spoke for the first time about the text, to tell learners to do the corrections. He added only one sentence about the activity: ‘When the verb is in the past tense there should be changes’. The learners spent a few minutes checking their own sentences and changing them if they were not correct. They then returned to their various alternative activities. The teacher also returned to walking around the class looking at the notebooks of individual learners without comment. In one case he lifted the newspaper that the learner was reading off the notebook in order to see it. The learner carried on reading and, again, the teacher made no comment. Most of the learners were engaged in the lesson activity for approximately eight minutes during a 55-minute lesson.

A repetitive practice strategy has a history and a context, rather than a discursive justification. It is a routine that has been found to ‘work’ in a particular context, in that it successfully co-ordinates a complex range of contextual exigencies and the affordances of available technologies and patterns of corporeal activity.

In both schools, resources were limited. Textbooks - if available at all - were generally only issued to learners who had paid fees, the libraries were not well stocked, there was only one photocopier in each school and this was often unavailable, there were no secure storage facilities and most learners in both schools only had the most basic stationery. However, the teachers could rely on the availability of blackboards, chalk, pens and notebooks.

Both schools followed a conventional subject based timetable. However, time schedules were frequently interrupted and unpredictable at the scale of the year, the term, the week and the day. Learner absentee rates were high in both schools. There was little specialization of time and space, and little guarantee that a majority of learners in a class group would be present at a particular time for a predictable duration.

Within the pedagogic culture of both schools, teachers were often absent. It was also not uncommon for teachers who were present at the school to allocate work to a class and then proceed with their own activities unrelated to the class group for which the period was timetabled, either in the classroom or elsewhere in the school.

The practice routine that was common across repetition led lessons was highly flexible and accommodated all the contextual features described here. Text selections were short enough to place on the blackboard. They invariably required learners to do an exercise or copy a text into notebooks. Texts were frequently placed on blackboards at the beginning of a day, and remained there for as long as was needed. If a lesson did not take place on a particular day, the text remained until the next day. It did not really matter if a learner was absent, as he or she could copy the text from another learner’s book. Routine pedagogic strategies freed teachers from the need to be present and engaged in interaction with a class group. Teachers did not necessarily need to place the text on the blackboard themselves; they could - and did - delegate learners to do so.

Repetitive practices that co-ordinate space/time and technology affordances constitute repetition led pedagogic practice. There is limited differentiation of the ‘steps’ of a lesson, often resulting in very ‘thin’, unvaried and undeveloped or unelaborated lesson content.
In this and other lessons categorized as repetition led, there was a clear pattern involving a text that is placed on a blackboard and then relayed, in completed form, into learners' notebooks. In most cases this is followed by a correctly completed version of the text being similarly placed on the board so that learners can check the work in their notebooks.

This routine was supported by standard classroom organisation and standard patterns of learner movement. Learners would arrive, sit in rows of desks, complete the activity, wait out the remainder of the period and then leave. Teachers, on the other hand, would either sit at their desks or walk from learner to learner, either looking at the learners' notebooks or simply making their corporeal presence felt.

Practice routines require little explicit text related communication from the teacher, since both teachers and learners are familiar with the routine. However, as interaction is the medium through which texts are specialized, i.e. related to the symbolic structure of a specific discourse, texts tend to be unspecialized.

In the lesson described in Vignette Three, the teacher spoke only two sentences. At the beginning of the lesson, he did not explicitly tell learners that they should do the exercise on the blackboard, that they should do it in written form in their notebooks, that they should work alone and so on. In spite of this, learners knew exactly what was required of them. They asked no questions about how to proceed.

Learners were aware of the pedagogic routine of this particular teacher, and of the implications of this degree of discursive attenuation for their learning. This was illustrated in the following exchange between a learner and a substitute teacher on a day when the teacher whose lesson was described in Vignette Three was absent:

T: I'm worried because I believe that you have only got two weeks till you write exams. What are you going to write if you don’t know the book?
L: (Stands up to respond vehemently) We are sitting here doing nothing most of the time. Why doesn’t someone stand up in front and tell us something fascinating about this book!
T: I can see what you are up to. You don’t want to learn. It is worrying me that you don’t know chapter one and you are in chapter two. I am here to relieve a teacher. I don’t have a clue what this book is about. I don’t know all the books for all the classes.
L: We last read the book in March
T: You are lying. What do you usually do in your English lessons?
L: We do class work with three sentences every day. The teacher just sits in front and embarrasses us, eats his apple and does nothing.
T: It is your education. It is up to you to ask if you can do something.
L: We can’t have education if there is no one to lead us.
T: You can form study groups.
L: Friends don’t always want to help.
T: Go home and read the book.
Within repetition led pedagogic practice, text selection is generally discourse specific, in that it is recognisable as having been derived from a particular discourse.

**In Vignette Three, text selection clearly pertained to various grammatical transformations.**

The absence of discursive regulation is evident in the absence of linkages between this and other texts and, sometimes, in the pacing and internal organisation or sequencing of the text. As in the case of convention led pedagogic practice, texts are disconnected from the generative principles of the pedagogic discourse from which they are derived. But unlike in convention led pedagogic practice, texts are also not mediated with reference to everyday experience. Instead, they are unmediated and constituted as inert segmental blocks. Where the text is lifted *en bloc* from a source, its internal structure in terms of sequencing reflects the discursive regulation imposed by the source. Where the text has been constructed by the teacher, the general lack of discursive regulation is also evident in the internal structure and sequencing of the text.

**Three different transformations were required for the activity described in Vignette Three: (active and passive form, direct and indirect speech and simple and complex sentence construction). Each of these transformations is based on different grammatical principles, which were not addressed by the teacher. In the absence of any interaction regarding these differences, the exercise could only serve a testing rather than a teaching function. For purposes of teaching and learning, the internal sequencing of the text rendered it largely incoherent without mediation.**

The size of the text was also indicative of the absence of a regulatory discourse pertaining to pacing. As the learner mentioned in the transcript cited in the previous block, this teacher regularly provided three sentences. Pacing was part of the routine.

Just as teachers do select discourse specific texts, they also do provide models for correct learner productions. These models are however incorporated into the same practice routine as the initial text. Criteria indicating why a particular learner production or correction model is or is not correct are not provided.
The lesson described in Vignette Three was typical of this category of pedagogic activities in the data in that an exercise type text that had been placed on the blackboard was followed by a set of corrections, also placed on the blackboard. In this case, the teacher did make one reference to criteria when he said: ‘When the verb is in the past tense there should be changes.’ However, this was not elaborated, nor did learners request elaboration. Thus, on the whole, neither the initial text nor the correction activity was mediated with reference to the principles that undergird the grammar activity. Instead, the two activities constituted a two step routine in which an incomplete and then a complete text is presented, but neither is mediated with reference to the generative principles for the discourse.

In repetition led pedagogic practice, regulation of the social order is directed towards maintaining the practice routine rather than towards inserting difference into that routine. The routine nature of the activity enables teachers to regulate the social order tacitly. As the routine is constituted primarily in terms of corporeal activity, control of the social order is also primarily about control of bodies, movement and noise. Teachers use the presence of their own bodies to tacitly signal surveillance of learners' bodies.

When teachers were physically present - as was the case for this lesson - they implicitly or explicitly monitored this rhythm. In this case, control was weak: the teacher walked around the room, checking that the text was transferred into notebooks and on two occasions he verbally checked with learners if they had done the task. The teacher did not show any interest in whether learners had completed the task correctly or incorrectly, nor did he show any interest in what they did once they had completed the task. He simply policed the routine of transferring a text into a notebook.

The practice of walking around the room and looking at the notebooks of individual notebooks for at least part of the lesson time was evident in seven of the other twelve repetition led lessons as well. In some cases, teachers would tick and sign the exercises, and in one case the teacher assigned a mark to each exercise. In no cases, however, did teachers actually comment to the class on the work, for example to indicate that learners should or should not proceed in a particular way. The observers could not hear all comments made by teachers to individual learners in these situations, but generally when teachers did speak to individual learners, they did not appear to be making comments about the work in these interactions.

When teachers were not walking around the room, they sat at their desks from where they could regulate learner behaviour.

Variations of pedagogic activities across different lessons in repetition led pedagogic practice

By definition, repetition led pedagogic practice generates similar activity routines across lessons for any one teacher. Furthermore, repetition led
pedagogic practices may be explained in part as a response to particular discursive, social and rhythmic conditions at the level of the school, as will be discussed more fully below. For this reason, repetition led pedagogic practice is likely to be common in some institutional contexts and not in others.

The activities in almost half the lessons observed in the two schools (sixteen) were categorized as repetition led. These activities were remarkably similar to that described in Vignette Three, except that some texts were much longer than others and these occupied learners for a longer time.

Repetition led activities for which teachers are not present

Repetition led activities do not rely on explicit teacher communication or on rich interaction between teachers and learners. Such activities require only that a text be delivered to learners, who are already familiar with the activity routine into which the text is inserted. Even when teachers are present they do not necessarily interact with learners, and when they do the interaction is more likely to relate to general control of learner behaviour than to the text itself.

Activities in three of the observed lessons were based on texts that were delivered to a class group in the absence of the teacher. In one case learners found the instruction for an activity on the blackboard, and in the other two cases a learner was delegated by the teacher to place a text on the blackboard so that the class could copy it into their notebooks.

The pattern of learner activities in two of these lessons was very similar to that described in Vignette Three. As when teachers were present, the main difference between activities related to the length of the text that learners were required to copy or the exercise that learners were required to do. In one case, however, the activity was not clearly specified and seemed to require the use of resources that learners did not have with them. In that case, most learners simply ignored the instruction and occupied themselves in other ways.

Repetition led activities without text selection

The three modes of pedagogic activity discussed in this chapter suggest that classroom activities should not simply be divided into those that are pedagogic (involving text transmission and discursive regulation of activities) and those that are not. Instead, there is a continuum of pedagogic modes from forms that are strongly discursively regulated, and that give access to recognition and realization rules, to forms that transmit discursively derived texts, but are nevertheless weakly discursively regulated and do not give
access to recognition and realization rules for the relevant pedagogic discourse.

From the perspective of learners and teachers who participate in lessons such as that described in Vignette Three, there is relatively little difference between repetition led pedagogic activities for which texts are selected, but the discursive orientation of the activity is extremely attenuated, and repetition led activities for which no texts are selected. It is not surprising that, in schools where repetition led pedagogic practice is common, timetabled periods in which no text is presented at all are also common. It is but a small step from a three-sentence lesson with very little pedagogic interaction to a no sentence lesson with very little pedagogic interaction. The patterned rhythm of corporeal regulation that carries learners through the former also carries learners through the latter. Time periods in which no new texts are introduced function as an extension of the time periods in which new texts are introduced and relayed into learners notebooks, as many learners take the opportunity to copy texts into their notebooks from lessons for which they were absent. In this case, the text is simply relayed via another learner's book, instead of directly from the blackboard.

No new texts were introduced in nearly a third of the timetabled periods that were observed, i.e. ten out of thirty-three. For three of these periods, the teacher was present in the class. For a further seven, teachers were not present, but in some cases teachers who did not come to the class were present in the school.

Whether the teacher was present or absent, learners occupied themselves very much as they did in the lesson period described in Vignette Three. When these periods occurred earlier in the day, learners spent a greater proportion of time copying notes into their notebooks, or reading the notes in their notebooks. On the other hand, when these periods occurred later in the day, a greater proportion of learners spent time simply chatting or waiting for the bell.

Articulation between modes of practice and control at the level of the school

The mode of framing or general control at the level of the school will facilitate the development of particular modes of practice performance at the level of the classroom. Strong external framing (or control that has pedagogic discourse as its dominant reference) will mandate discourse led pedagogic
practice, and will specialize space/time and technology related practices to this end. Strong general control will mandate particular practice strategies, but these might not be discourse led. Strong repetition led central control will mandate a pattern of space/time and technology use routines that is not responsive to discursive variations in pedagogic purposes and requirements.

This analysis asks, firstly, whether control of pedagogic practice at the level of the schools is strong or weak, and whether it takes as its regulative referent pedagogic discourse, the circulation of segmental practice conventions or responsiveness to contextual affordances realized in repetitive practice routines.

Within the administrative domain, both school A and School B focused control at the level of the school largely on space/time routines. The regulation of punctuality, presence and absence of learners and teachers at the school constituted the most frequent item on staff meeting agendas. On the days that principals were tracked, policing learner and teacher absence, presence, movement and punctuality occupied the greater part of the day for principals at both schools. This does not mean that space/time routines were effectively policed. Ironically, the very fact that these routines were weakly established and had not been institutionalized resulted in an inordinate focus on trying to maintain space/time boundaries.

Items on staff meeting agendas that related more directly to pedagogic activities, such as examination organisation, were also constituted primarily in terms of their space/time and technology aspects. For example examinations were discussed in terms of timetabling and invigilation schedules.

Within the technical domain, specifically at subject meetings, the most frequent agenda item related to selection, pacing and sequencing of syllabus 'coverage'. This was discursively regulated to the degree that the requirements of the syllabus were taken into account. The main focus was on reaching agreement as to what should be covered for assessment in the June or November examinations. There was however very little indication of any interaction relating to how discourses or texts were to be transmitted. Thus the aspects of pedagogic practice that determine whether access is given to recognition and realization rules were not generally discussed or regulated at the level of the school or subject department. In effect, this meant that external framing through subject department structures focused primarily on the time rhythms of pedagogic practice.

In both schools, then, a focus on space/time and technology rhythms dominated external control and framing of pedagogic practice. This control was stronger at School A than it was at School B. There was, for example, stronger monitoring of teacher movement, to ensure that teachers who were at school did not absent themselves from their classes.

Secondly, the analysis considers how external control and framing articulate with pedagogic practice at the level of the classroom.
In the context of both School A and School B, space/time and technology rhythms conformed to the broad generic timetabling pattern that is common to South African secondary schools, and to the specific version of this that is common in former DET schools. The space/time boundaries associated with this timetabling pattern were, however, weakly controlled and frequently interrupted for reasons arising from unpredictable everyday (non-pedagogic) exigencies within the school. These interruptions represented forms of general external control that were not discursively regulated. In this context, the specialization of space/time and technology use to discursive purposes had to be asserted (if at all) at the level of the individual teacher in the classroom.

The teacher who taught the lesson described in Vignette One commented after the lesson that he constantly had to resist contextual space/time rhythms in order to complete his lessons:

The bell just goes anytime. Sometimes it goes in the middle of a lesson. I just ignore it and finish my lesson because this is my teaching time.

Another example of this resistance was evident in the way this teacher dealt with interruptions when learners from other classes entered his class during the lesson. Unlike all the other teachers, this teacher sent the learners away and refused to pause in his teaching or to allow learners to be called out of his class. In these ways, the teacher's co-ordinations of his own space/time rhythms resisted, rather than conformed to, those of his environment. The teacher had also ensured that the learners in his class all had access to textbooks during the lesson, even though the practice in the school was that learners were only given textbooks once they had paid their fees.

Individual teachers could only resist unspecialized institutional rhythms up to a point. For example, if timetabling did not locate science lessons in science laboratories, teachers of science were constrained in the kinds of science activities they could organize. Lessons observed indicated little correlation between subject requirements and timetabled space allocation. None of the five science lessons that were observed took place in a laboratory. However, a mathematics lesson did take place in a science laboratory and a Xhosa lesson took place in a domestic science laboratory.

Summary

This chapter started with a discussion that provided a bridge between the review of three different theoretical approaches to understanding pedagogic practice and the development of a conceptual framework. On the basis of this, an analytic framework has been developed. This framework describes pedagogic practice as a hybrid practice that is realized in three different modes with regard to the following features:

1. Text selection. Differentiation between modes of pedagogic activity rests on the way in which texts are mediated within pedagogic activities, rather than on text selection.
2. The degree to which evaluation criteria are made explicit, and the
derivation of such criteria.

3. The degree to which regulation of the social order is adapted to any one
of the three possible organising referents. These are (a) the specific
structure of a text and the generative principles of the discourse from
which it is derived, (b) the form of a particular activity or (c) maintenance
of contextual repetitive space/time and technology routines.

4. The degree to which space/time and technology use are adapted to the
specific structure of the text and the generative principles from which it is
derived, or to the conventional structure of a pedagogic activity, or to
contextual affordances and routines.

5. The degree to which explicit or tacit interaction between teacher and
learners supports text mediation as described in (1), (2) and (3) above.

Cumulatively, these features reflect the degree to which pedagogic practice
gives access to recognition and realization rules.

Finally, the framework addresses the articulation between the mode of
pedagogic practice performance at the level of the classroom and modes of
control at the level of the school.
Chapter Seven: A rhythmanalysis of pedagogic practice

This chapter presents an analysis of lesson observation data in relation to three modes of pedagogic practice. It then goes on to make some comparisons between the three different modes and the two schools. The lesson observation data is constructed in relation to the five features that constitute the analytic framework outlined at the end of chapter six. The unit of analysis is the lesson period, defined as a timetabled period during which a class group present themselves in a classroom. Not all lessons incorporate clearly delineated pedagogic activities, but where these are evident, they are analysed in the context of the lesson periods.

The term ‘lesson period’ has two components: a ‘lesson’ or set of pedagogic activities and a ‘period’ or time interval. It is generally assumed that the intended use of the time period is a lesson, or pedagogic activity. However, this analysis separates these two aspects in order to explore the relation between them: a time period may be completely or partially dedicated to a ‘lesson’, or it may be empty of any pedagogic activity. The analysis includes lesson periods during which no pedagogic text was delivered and lesson periods during which teachers were absent. The purpose for this inclusion is to show how lesson periods range from being pedagogically purposeful and elaborated to pedagogically purposeless or empty.

At the one end of this continuum, a particular text is transmitted differently: the daily repetitive habituated structure of activity in the classroom is harnessed and adapted to the transmission of a particular text. Towards the other end of the continuum, a text is introduced into a daily repetitive structure, but there is minimal adaptation of the structure. In the latter case, all texts are absorbed into the same pattern of activity. Most lesson activities lie between these two positions, and are constituted as a particular balance between a habituated patterned structure of activity and adaptation to a different and particular text and discourse. At the extreme repetitive end of the continuum, there is no text
selected for the period and therefore no adaptation of repetition to difference. The activity for the period is constituted as pure repetition of space/time and technology use. Learners’ minds and bodies are disciplined to maintain the rhythmic structure of activity even when its pedagogic purpose is absent.

Descriptions of lesson periods are categorized according to the three modes of pedagogic practice developed in chapter six. Each of these modes is constituted as a particular relation between repetition and difference. The first two are characterized by different organising referents for difference, while the third is characterized by repetition as dominant organising referent for pedagogic activity, and incorporates periods in which there is no pedagogic activity – only repetition of habituated space/time and technology use practices.

The presentation of each category includes a brief descriptive overview of each lesson in the group followed by an analysis of the group as a whole in terms of five defining features. The overview of each lesson describes text selection with regard to discursive content, the types of activities through which content is presented and mediated and the use of lesson time beyond the bounds of pedagogic activities. The analytic descriptions of the features of groups of lessons outlines commonalities in terms of the relation of the lesson activities to an organising referent, and the relation between the discursive, interactional and rhythmic aspects of the activities.

**Mode one: Discourse led activities**

As was discussed in chapter six, mode one type activities are characterized by the insertion of discursively regulated difference into repetitive patterns of daily pedagogic practice.

Of the thirty-three lessons formally observed, only two were categorized as incorporating discourse led pedagogic activities. These were the only lessons in which mediation of the text through interaction and regulation of the social and rhythmic order was closely harnessed to the generative principles of the
specific pedagogic discourse, thus giving access to recognition rules. They were also the only two lessons in which evaluative criteria for lesson activities derived from the generative principles of the pedagogic discourse were made explicit, thus potentially giving learners access to realization rules for the specific pedagogic discourse. Learners were told not only whether work they produced was correct or not, but also why this was the case, in terms of the grammar of the discourse.

Both these lessons were taught at School B, which was the lower performing of the two schools in terms of grade twelve results. Given that only thirty-three lessons were formally observed and only two fell into this category, the fact that they occurred at the same school is seen to be co-incidental rather than analytically significant. However, it is significant that overall there were so few lessons in this category. In the context of the full set of lessons formally observed at both schools, these were unusual lessons, as should be clear from the analysis as a whole.

Overview of lesson activities with specific reference to text selection and delivery

- **Science (School B Lesson 8):** The teacher was waiting for the learners when they arrived at the beginning of the lesson period. As soon as the whole group had settled, she drew two diagrams on an otherwise clean blackboard, labelled ‘solid’ and ‘gas’. The first diagram, labelled ‘solid’, was of a square enclosing closely packed circles. The second diagram, labelled ‘gas’, was of a square enclosing loosely spaced circles. The teacher then announced the lesson topic viz. ‘gas pressure’. It became apparent that this was a revision lesson. The teacher proceeded to ask a series of questions that led learners through an explanation of the relation between the molecular structure of a gas and ‘the force it exerts in an area’. On four occasions she paused to summarize or illustrate the explanation by means of words or diagrams on the blackboard. Finally the formula $P = F/A$ (pressure equals force over area) was recorded on the blackboard.
• **Mathematics (School B Lesson 16).** This lesson was fully described in chapter six as Vignette One. The description will not be repeated here.

**Structure and sequencing of pedagogic activity**

Each step within the pedagogic activities in these two lesson periods was oriented towards transmission of specific texts and related to the particular vocabulary and internal structure of the pedagogic discourses from which the texts were drawn. Both teachers used careful sequencing to construct a conceptually logical explanation as the lesson proceeded and to arrive at the fully explicated formula or theorem as an end point. Reference was made to prior discourse specific knowledge which learners were expected to have acquired in prior lessons. Both teachers asked questions that required learners to develop explanations on the basis of prior knowledge, for example: ‘How do we know...’ and then incorporated learner responses into their explanations.

The mathematics lesson exhibited a more complex structure than any other lesson that was observed. It was the only lesson period in which there were (a) two separate activities (content presentation and application exercise) that (b) related to the same text or content, (c) involved different modes of communication (verbal and written), (d) were developmentally linked (in this case moving from explanation to application) and (e) required learners to use or apply knowledge that had been introduced during the lesson period in a well structured and sustained way.

The science lesson was less complex, involving verbal explanations and questions relating to the construction of a set of notes on the blackboard. Nevertheless the logic of the internal structure of the explanation and summary was tightly focused and harnessed to the elaboration of a discursively specialized concept.
Both lessons were explicitly connected to previous lessons, in that the teachers asked learners to recall prior knowledge that underpinned the lesson text.

**Evaluation criteria**

Both teachers demonstrated to learners how to proceed and provided or elicited discourse specific criteria that indicated why learner contributions were deemed to be appropriate or inappropriate. The mathematics teacher in particular made repeated comments relating to appropriate procedure, as was illustrated in the discussion of Vignette One in chapter six.

The science teacher similarly asked learners to provide reasons for their answers based on discourse specific knowledge:

<table>
<thead>
<tr>
<th>T:</th>
<th>We are going to look at gas pressure. Imagine these are two containers. One is filled with a solid and the other with gas. What do you think is the difference?</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1:</td>
<td>Space.</td>
</tr>
<tr>
<td>T:</td>
<td>What is the difference in space?</td>
</tr>
<tr>
<td>L1:</td>
<td>The first one is closely packed.</td>
</tr>
<tr>
<td>T:</td>
<td>What is the difference? Everybody says there is a difference of space in the solid and the gas. Which has larger spaces?</td>
</tr>
<tr>
<td>L2:</td>
<td>Gas.</td>
</tr>
<tr>
<td>T:</td>
<td>What can we do if we have a larger space?</td>
</tr>
<tr>
<td></td>
<td>A few learners chorus: Move.</td>
</tr>
<tr>
<td>T:</td>
<td>In the gas you can move in any direction because you have lots of space. Movement in large spaces is called random movement. What?</td>
</tr>
<tr>
<td></td>
<td>L’s repeat: Random movement.</td>
</tr>
<tr>
<td>T:</td>
<td>Gas has particles. Because of space we have random movement. Random movement is a movement in any direction. In order to move what do we need?</td>
</tr>
<tr>
<td></td>
<td>A few learners chorus: Energy.</td>
</tr>
</tbody>
</table>

Both teachers used question and answer interactions to elicit explanations for each move from learners, indicating whether these were correct and providing explanations themselves when learners seemed unable to do so. Both teachers explicitly drew attention to the discipline appropriate vocabulary. The science teacher asked questions such as: ‘What is the scientific name for this?’ The mathematics teacher made comments such as ‘Let us use mathematical knowledge and terms’.
Regulation of the social order

In both sets of lesson activities, regulation of the social order by the teacher was oriented towards the transmission of the lesson text. Both teachers were overtly in control of the activity throughout the lessons. In both lessons, interaction between the teacher and the class as a group was sustained for close to the full time available. This interaction was used to align regulation of the social order to transmission of the text and to relate the text to the pedagogic discourse from which it was derived.

'Disciplining' or regulation of learner behaviour by the teacher was largely directed towards removing distractions and maintaining engagement with the lesson text. Non text-related interactions were avoided and discouraged. Even apparently important information provided by a learner – that a member of the class was carrying a knife – was brushed aside by the mathematics teacher. Similarly, when a learner entered the science teacher's class late and remained standing, waiting for permission to be seated, the teacher did not seem to notice him until he responded to a question about the text, at which point she told him to be seated. Whether or not particular behaviour was allowed - such as talking or referring to textbooks - depended on the specific requirements of the text-related activity at a particular point in the lesson.

Space/time and technology use rhythms

The broad rhythmic format of both sets of lesson activities was standard, in that learners were seated at individual desks while teachers explained the pedagogic text and made notes on the blackboard. However, this pattern was adapted to mediation of the specific pedagogic text. Both teachers utilized the full lesson time available (conventionally 55 minutes), apart from brief administrative comments at the beginning. Both took time to check, through questioning, whether learners understood and adapted pacing to learner responses.

The momentum and focus established in both lessons were threatened by the frequent interruptions from 'visitors' to the class. In both cases, teachers
avoided engaging with the visitors and insisted on retaining focus on the lesson text in the face of these and other distractions. Timetable and bell time changes threatened to cut short planned lesson time, and in both cases teachers resisted these threats. The starting time of the science lesson was delayed by a change in venue but this change was effected unusually speedily. Similarly, the bell rang early to signal the end of the mathematics lesson (and the end of the school day). The teacher chose to ignore the bell and complete the lesson.

The spatial coding of the teaching spaces for both these lessons was more specialized to specific pedagogic discourses than was the norm in the two schools. This was particularly salient in the case of the space in which the mathematics lesson was taught, although this space was specialized to science rather than mathematics. The teacher taught both mathematics and science, and his teaching room was a science laboratory. A few pieces of science equipment such as a scale and a vacuum box were arranged on a side counter. Inside the storeroom, leading off the main room, science kits were neatly arranged on shelves. There were nine science poster projects displayed on the walls, and these were covered in text with few or no pictures, in contrast to most other poster projects displayed in the school. There was also a science poster explaining how air is formed. However, the usual photocopies of classroom cleaning chore lists and rugby fixture lists were also on display.

The display in the space in which the science lesson was taught was less elaborate and less specialized that that in which the science lesson was taught. There were five project posters covered in text relating to science topics on the wall, as well as three printed posters relating to HIV, smoking and health and three non-curriculum related posters. This did however represent a greater degree of specialization than was usual in other teaching spaces in both schools where most items on display were unconnected to any specific pedagogic discourse.
In terms of technology related practices, both teachers used standard chalk and blackboard techniques. However, these were harnessed to communication of the particular text as teachers visually recorded the logical construction of the text as the explanation proceeded. Technology use was more elaborate in the mathematics lesson than in the science lesson. The mathematics teacher insisted that learners initially leave notebooks and textbooks closed and concentrate on ‘understanding’ the explanation. When the explanation component of the lesson was over, he instructed learners to do an exercise from the textbook based on the same topic saying: ‘Now take out your textbooks. We need to apply the new knowledge’. He discussed the first few questions in the exercise with the class and then set a homework exercise from the textbook. As was mentioned in the examples in chapter six, the fact that most of the learners in the class did have textbooks with them was something of an achievement in the context of these schools. This was the only formally observed lesson in which textbooks that learners had brought with them were used by the whole group within the pedagogic activity. The teacher had ensured that all learners had copies of the textbook and had previously established the expectation that these would be used in class.

The science teacher did not require learners to record notes or to do any homework on the topic. No reference was made to a textbook or any other source. In this respect, the science lesson activity was less unusual in relation to other observed lessons than was the mathematics activity.

**Summary**

Both these lessons involved the familiar activities of teacher explanations illustrated on the blackboard and supplemented by elicitation of learner contributions. They might be described as traditional talk and chalk lessons, and one included instances of chorusing of answers by learners. Only one was followed by written application or ‘homework’. Yet each was closely adapted and attuned to the systemic structure of the relevant pedagogic discourse and the specific texts that were being transmitted. In each lesson learner engagement with the text was carefully and systematically mediated. It
is this gearing and mediation that potentially gave learners access to recognition and realization rules that ultimately enable acquisition of the generative principles of a particular pedagogic discourse.

**Mode two: Convention led activities**

In terms of the description of convention led pedagogic practice constructed in chapter six, convention led pedagogic activities are characterized by the insertion of difference in the form of activities specifically devised for the transmission of a particular text into a repetitive contextual pattern of pedagogic practice. However, unlike the case of discourse led activities, the internal structure of the convention led activity is not regulated by the generative principles of the pedagogic discourse.

The term 'convention' is used here to suggest a recognisable generic pedagogic activity format, such as a discussion, group work, reading a text or writing an essay. In the case of convention led pedagogic practice, the activity is presented as an end in itself rather than as a vehicle for giving learners access to recognition and realization rules for the pedagogic discourse. Steps internal to the activity follow the conventional format of the activity rather than being adapted to the mode of enquiry and content requirements specific to the particular pedagogic discourse. In the case of history, for example, teacher and learners discuss a topic without reference to history strategies such as assessing evidence, comparing interpretations or points of view, considering periodization and so on. Each activity tends to be discrete rather than linked to prior and subsequent activities. This would be evident, for example, in the absence of references to prior learning.

As teaching and learning activities vary from one lesson to the next in this mode of pedagogic practice, learners need to know what is required of them in order to perform activities set for them. However, the absence of discourse specific criteria for appropriate learner productions would necessarily result either in criteria that are not discourse specific or in under-specification of learner activities. As will be seen in the analysis below, verbal learner
productions in all lessons in this category were constituted as statements relating to everyday experience of learners, while written activities were either not required or were so under-specified that most learners ultimately wrote little or nothing in response to tasks set.

Five of the thirty-three formally observed lessons were categorized as convention led. Three of the lessons in this group were history lessons, while the other two were a geography lesson and a guidance lesson. Four of these lessons were taught at School A and one at School B. Again, this distribution cannot be regarded as significant in terms of a comparison between the two schools in the context of the relatively small number of lessons formally observed. However, it is significant that the total number of lessons in this and the previous category - in which teachers were making an effort to teach, or to mediate texts in some way - was a small proportion of the total number of lessons observed.

Overview of lessons with specific reference to text selection and delivery

Three of the five lessons in this group involved the joint construction of a text in discussion between teacher and learners on topics stipulated by the teacher.

- **History (School B Lesson 14)**: On entering the class learners found the following written on the black board:

  Write an essay on the following:
  
  - Group one: Who organized the campaign and why?
  - Group two: What the protesters did.
  - Group three: The government's response.
  - Group four: What the campaign achieved.

  The teacher distributed a single page of text photocopied from a textbook as a resource. Learners were instructed to work in pairs and each pair was required to answer one of the four questions in discussion, with one learner recording the ‘answer’. ‘Reporters’ in fact wrote almost nothing
and the ‘report backs’ ultimately dissolved into a class discussion led by the teacher. The discussion took the form of a series of comprehension questions, closely based on the text, asked by the teacher and answered by learners. The interaction occasionally shifted away from the content of the text, but at those times the interaction also became less specialized to history and became generalized to learners’ everyday experiences.

• **Guidance (School A. Lesson 28):** The guidance teacher instructed learners to ‘form groups’ and to ‘continue the discussion’ of the topic: ‘Relations between boys and girls’. The report back session in the second half of the lesson ultimately took the form of a free ranging class discussion led by the teacher. The main focus of the discussion was that of shyness between boys and girls. At the end of the lesson, the teacher indicated that the same activity and topic would be resumed in the next lesson.

• **History (School A. Lesson 32):** This lesson on the topic ‘The social consequences of the introduction of capitalism in South Africa’ was fully described in chapter six. The description will not be repeated here.

The other two lessons involved explanatory commentaries by the teachers on texts previously provided:

• **Geography (School A. Lesson 30):** The text was a set of notes in the learners’ notebooks relating to ‘Climate in Tropical Rainforests’. The teacher briefly prefaced the lesson by ‘reminding’ learners of the geographic features associated with tropical rainforests, such as position on the globe, climate and vegetation. He then instructed learners to take turns reading out loud the notes headed ‘Climate’ in their notebooks. While learners were reading he interjected briefly every so often to explain aspects of the notes.
• **History (School A. Lesson 24):** A list of history exam formats and a separate list of history topics had been written on the blackboard prior to the lesson.

<table>
<thead>
<tr>
<th>Final History Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explain the words</td>
</tr>
<tr>
<td>2. M/Choice</td>
</tr>
<tr>
<td>3. True of false</td>
</tr>
<tr>
<td>4. Fill in the missing words</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short essay questions</td>
</tr>
<tr>
<td>1. Capitalism (5)</td>
</tr>
<tr>
<td>2. Industry (5)</td>
</tr>
<tr>
<td>3. Growth of domestic markets (5)</td>
</tr>
<tr>
<td>4. Improvement of agricultural methods (5)</td>
</tr>
</tbody>
</table>

The teacher spent about five minutes explaining how learners should approach the different formats in the first list, procedurally, in the examination. During this time he wrote one example on the board:

<table>
<thead>
<tr>
<th>Multiple choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
</tr>
<tr>
<td>1. To depend only on farming</td>
</tr>
<tr>
<td>2. circulation of money</td>
</tr>
<tr>
<td>3. subsistence economy</td>
</tr>
<tr>
<td>4. capitalism.</td>
</tr>
</tbody>
</table>

The teacher then instructed learners to ‘write about and explain’ the four topics listed on the blackboard while he walked around assigning marks to notebooks. He made no explicit link between the content and format of the writing task and the discussion of examination question formats. There was no further specification of approach or format or discussion of content for the writing task. Most of the learners did not make much progress with the written task in class.
Structure and sequencing of pedagogic text and activity

In these five lessons, teachers engaged in interaction with learners for a substantial portion of the lesson time, though longer in some than in others.

In terms of internal structure, the pedagogic activities were constituted as a single-phase activity rather than a series of related, progressive and developmental activities. The activities were invariably under-specified in relation to any required learner productions. In two of the lessons teachers made an attempt to initiate interaction between learners, in the form of group work that was intended to lead to written or oral reports. In both cases, the topics and instructions were so vaguely defined that group discussions were unfocused and no actual written reports were produced. In a third lesson activity, learners were required to write explanations of listed concepts. On this occasion, too, the requirements of the activity were unclear and very little if any writing was actually done by the majority of learners. Thus all five lessons were ultimately reduced to single-phase activities constituted as verbal interactions. These interactions were either teacher narratives with occasional learner contributions or, in one case, an unstructured learner discussion.

The lack of follow-through with regard to written or structured oral learner productions in these lesson activities can be explained primarily in relation to the under-specification of the activities. For example in the history activity relating to the defiance campaign, learners were required to read a one page photocopied text and then required to answer - in groups, and in writing - a question that could be answered from one sentence in the distributed text. The question for one of the groups was: ‘Who organized the campaign and why?’ This could be (and was) answered from the sentence in the photocopied notes: ‘The ANC decided to challenge key apartheid laws’. The teacher allowed ten minutes for groups to discuss and write the answers to these questions, with one question per group. The rest of the lesson was structured as a 'discussion', which the teacher led by calling for answers to the same four comprehension type questions. The teacher did elaborate the
question quoted above by asking for examples of apartheid laws, but this initiative soon took the focus of the discussion away from the defiance campaign via reference to Bantu education into the realm of learners' current educational experiences. Thus the absence of internal structuring, focus, specification and follow-through in this and other activities was indicative of the absence of discursive regulation. The teacher did not seem to know how to engage with the text beyond asking four simple, content based, comprehension type questions that could be found in one sentence within the text. When the discussion moved away from these four questions, it became a general discussion about learners' experiences with no specific historical focus.

In terms of external structure, the activities were not linked to prior or subsequent activities in a progressive or developmental way. There were no explicit links to prior knowledge or different texts or to the generative principles for the pedagogic discourse or its specialized mode of enquiry. Two of the lesson activities were linked to prior lessons in non-developmental ways in the sense that they continued to engage with texts that had been introduced in previous lessons. The guidance lesson activity was an extension of a discussion that had been initiated in a previous lesson, and the geography activity involved reading a text that had previously been copied into notebooks. However, none of the lesson activities required learners to draw on and make links with prior discourse specific knowledge outside of the selected text. Again, this contributed to the constitution of activities as free standing and segmental. Four of the activities were future oriented in that they were geared towards the upcoming examinations, but there was no sense that they constituted a phase within a developmental approach to transmission.

**Evaluation Criteria**

In these lessons, teachers did not make discourse specific criteria for appropriate learner productions available to learners either by modelling them or by eliciting them from learners. Learners did not know how to proceed in a way that is specific and appropriate to doing history or geography, nor were
they required to do so. With very few exceptions, teachers did not communicate to learners that statements were appropriate or inappropriate, nor why this was the case. In verbal interactions, productions elicited and accepted from learners were generally not specialized, drawing on everyday experiences and common sense. On the few occasions when learners were told that a statement was inappropriate, the criteria were not discourse specific. In one case, learners were discouraged from being critical of people from rural areas, and in another case a teacher pointed out that a learner had not identified the correct answer to a comprehension type questions based on a written text. (See also the discussion of Vignette Two in chapter six for further examples of points made here).

Two of the lessons incorporated formal evaluation activities, when teachers ‘marked’ learners’ notebooks. This involved ticking and signing work or assigning a mark for work completed. In none of the lessons was the ‘marking’ accompanied by any communication of discourse specific criteria to the class as a whole or models for correct answers.

The most explicit evaluative criteria were presented in the history lesson relating to examination formats. The teacher spent about five minutes explaining to learners what the procedures were for answering questions in different examination formats. For example, they were told that, when answering true/ false questions, multiple choice questions and ‘missing word’ questions they should only write the missing letter or word rather than full sentences. While these comments were useful as examination preparation, these procedural conventions were not specific to history as a pedagogic discourse.

**Regulation of the social order**

All these lesson activities involved a degree of teacher-learner or learner-learner interaction. This had the effect of establishing social order, to the extent that most learners were engaged in listening or responding to the teachers or each other. This engagement signalled to learners what was
required of them in the moment. Thus regulation of the social order was to a lesser or greater degree specialized to the form of the lesson activity and effected through the guidance of the teacher. While teachers took the lead through verbal interaction, the activities moved forward, but as soon as learners were expected to prepare an oral or verbal contribution beyond one-sentence responses to specific questions, they were unsure what was required of them. Written tasks set for learners were never actually completed. Similarly, oral activities fell apart as soon as learners were required to interact with each other rather than the teacher. In the case of the guidance lesson group work activity, learners became distracted from the text, or topic, of the lesson, to the point of becoming quite unruly. On this occasion, some learners occupied themselves with unconventional classroom activities such as putting on make up, but they nevertheless remained physically contained in their seats.

**Space/time and technology use**

This group of lessons included a range of activities that suggest some variety: class discussion, group work followed by written and verbal reports, reading and commenting on a text, writing a text (of unspecified format) and using resource material. Similarly, technology use across the lessons was relatively varied compared to other groups of lessons. In one lesson brief task instructions were written on the blackboard and in a second learners were referred to notes previously copied into their notebooks. Two other lessons involved no writing or reference to written texts at all. The history lesson on the defiance campaign was unusual in that learners were provided with a resource - a single page photocopied from the set textbook - on which to base their responses to questions.

Yet from the point of view of learners these lesson activities offered very similar experiences in terms of space/time use rhythms. Pedagogic activities were different in terms of what teachers – and sometimes learners – were talking about, but not in terms of physical activities. The learners arrived, sat down, listened to the teacher or other learners reading or talking, in some
cases made one or two contributions to or became distracted from the official
discussion, and then left.

This similarity can be ascribed largely to the under-specification of learner
activities within the lessons. The weak specification of learner activities
resulted in weak regulation of learner-learner interaction and of learner bodies
and movement. In two of the lessons – the guidance lesson and the history
lesson on the defiance campaign – learners were initially instructed to work in
groups. In the case of the defiance campaign history lesson, the teacher
instructed learners to work in groups comprising a row of about ten learners.
However, most learners did not change their seating position in response to
this instruction; instead they simply spoke to whoever was sitting closest. In
effect, these ‘group work’ lessons were barely distinguishable from the other
lessons in terms of the pattern of interaction that emerged. In the case of the
guidance lesson about a quarter of the class group ignored the activity
completely and occupied themselves in other ways.

A common rhythm of teacher movement was evident in four of the five
lessons: teachers would provide information or instructions or lead
discussions from a position from the front of the class. There after they would
move around the class keeping order or marking learner notebooks for the
remaining time.

Lesson time was allocated to one - or in one case, two - discrete activities
rather than a chain of developmentally linked and related activities. This
contributed to constituting activities as segmental ends in themselves rather
than as part of an ongoing process of acquiring elements of a larger
discursive system. In two lessons the activities - both discussions - were
sustained for the duration of the fifty-five minute lesson time. In each of
remaining three lessons, teachers elected to either start the activity ten to
fifteen minutes late, to end it ten to fifteen minutes early or, in the case of the
geography lesson, both. In the remaining time learners were expected to
occupy themselves. There were also frequent interruptions by learners and
teachers from outside the class.
The visual coding of all the classrooms in which these lessons took place was similar and display areas were weakly specialized. Classrooms had the usual blackboards and rows of desks. Display areas were generally bare or, in some cases, contained a few posters unrelated to the curriculum. In all the classrooms there were empty cupboards and in three there was some type of cleaning equipment positioned prominently against the front wall near the corner.

**Summary**

The apparently varied activities presented in these lessons lacked internal definition and structure and were subsumed into the rhythmic substratum of the school. This was overlaid by teacher narratives with some learner contributions and almost no written work. Each activity was an end in itself rather than a vehicle for transmitting specific generative principles for pedagogic discourses. Such activities did not offer sufficiently strong guidelines for purposeful lesson structures. Learners were required to participate in a discussion or group work, or to read a text or write something on a topic, but it was unclear what learners were required to gain from these activities other than doing them for their own sakes. Criteria for these activities were unspecified and learners were given access to neither recognition nor realization rules relating to the various pedagogic discourses. Without knowledge of such criteria, and the associated recognition and realization rules, learners could not proceed without the direct and immediate guidance of teachers.
Mode three: Repetition led activities

Repetition led activities are characterized by the insertion of a discourse specific pedagogic text into a repetitive pattern of pedagogic practice. As was discussed in chapter six, delivery of the pedagogic text is adapted to established repetitive routines rather than vice-versa. Each lesson activity is constituted as more or less the same activity, albeit with a different text, or content.

In the case of the lessons in this category described below, the repeated pedagogic activity essentially involved two phases. In phase one, a written text was placed on the blackboard, and then copied or completed by learners in their notebooks. In phase two, a completed or corrected version of the text was placed on the blackboard and learners were required to compare this to their own versions in order to make corrections. The two phases were often stretched over two lesson periods. In some cases, learners were required to copy texts rather than do some form of exercise, and phase two fell away.

This activity pattern was common to the majority of lessons taught to the class groups across different schools, different subjects and different texts within subjects. Consequently learners knew what they were expected to do. Teachers did not need to give instructions or to do anything other than deliver the texts – and this did not necessarily require their physical presence in the classroom. Teachers did however need to ensure that learners remained orderly. Interactions between teachers and learners focused on social order more often than on pedagogy.

In addition to lesson periods in which a text was inserted into this pattern of activity, there were a number of periods in which no text was delivered. For reasons already mentioned, these are included in this section of the analysis. Thus lessons in this mode fall into four sub-groups:
Thirteen lessons in which a teacher was present, and a lesson text was selected and delivered by the teacher.

Three lessons in which the teacher was absent, but a lesson text was nevertheless selected by the teacher and communicated to learners.

Three lessons in which the teacher was present, but no lesson text was selected or delivered by the teacher.

Seven lessons in which the teacher was absent and no lesson text was selected or delivered by the teacher.

Sub-group one: Repetition led activities for which teachers were present and lesson texts were delivered (Thirteen lessons)

Overview of lesson activities with specific reference to text selection and delivery

- Geography (School A Lesson 18): The teacher announced a topic – sedimentary rocks – and then spent twenty minutes copying notes from a textbook onto the blackboard. The learners copied the notes into their notebooks. When the teacher finished writing on the blackboard he spent a few minutes walking around the room watching learners write, then sat at his desk writing. The only interaction relating to the lesson text took place when the teacher asked one learner whether he could name types of sedimentary rocks. The learner could not do so. The teacher reprimanded the learner for not being able to name the types of rocks and there was no further interaction relating to the text.

- Xhosa (School A Lesson 19): On entering the classroom learners found twenty short answers to a grammar exercise done in a previous lesson on the blackboard. Learners were instructed to exchange books and mark the exercise. They then did corrections in their own books and individually took the work to the teacher to be initialled. The teacher did not move from her own desk throughout the lesson. Apart from issuing brief instructions at the beginning of the lesson, and asking once whether learners had finished the work, she did not interact with the class as a whole.
• **Afrikaans (School A Lesson 21):** On entering the classroom learners found six Afrikaans sentences on the blackboard, with an instruction to rewrite these in the negative form using ‘ooit’ or ‘nooit’. There was also a list of oral topics accompanied by a written instruction to prepare oral presentations on these topics for the next day. The teacher did not interact with the learners at all about the work on the black board; she spent the lesson walking from learner to learner looking at learners’ notebooks and occasionally telling learners to be quiet.

• **Afrikaans (School A Lesson 22):** At the beginning of the lesson the teacher copied five cloze\(^5\) type grammar sentences involving use of the infinitive form ‘om te’ from a textbook onto the blackboard (e.g. Mnr Phosa het besluit … verder … studeer). She instructed learners to complete the sentences in their notebooks. After fifteen minutes she asked volunteer learners to write the answers on the black board. Learners struggled to do the sentences correctly and the teacher kept calling for further volunteers until the correct answer was given; in one case the teacher accepted an incorrect answer. Thereafter the teacher instructed learners to ‘do corrections’. She spent a few minutes walking around allocating marks to the exercise in learners’ notebooks. The allocated marks were based on the number of corrections done. The teacher then stood at her desk marking tests for a different class.

• **Mathematics (School A Lesson 25):** The teacher instructed learners to take out a photocopied worksheet that she had previously given them and to ‘continue’ with it. She then worked at her desk while the learners did the problems on the worksheet. The worksheet contained 52 different problems as revision for eleven different topics in the syllabus, e.g.

\[
\begin{align*}
(a) \text{ ADD } 5a^2 - 2ab + 4b^2 \text{ AND } -2a^2 + ab - 3b^2
\end{align*}
\]

---

\(^5\) This term is generally associated with reading exercises but is used here more generally to refer to any exercise in which words are deleted from a sentence and learners are required to fill in the blanks.
A few learners approached the teacher to ask questions, which she answered, and on one occasion she said to the whole class: ‘If you are talking about a triangle you must show me a symbol’. There was no further interaction between the teacher and the class as a whole. She remained at her desk working while most learners worked quietly at their desks until the end of the lesson.

• **Business Economics Test (School A Lesson 26):** At the beginning of the lesson the teacher handed out a photocopied page of test questions. Learners wrote the test and handed in their papers as they finished; all had finished within 40 minutes. There were nine questions, of which examples were:

  - ‘The adding machine makes a certain amount of noise: True or False’ (2 marks) and ‘Give two components of a computer’ (4 marks).

Twenty minutes remained during which the teacher initially attempted to ‘go through’ a different set of test questions – i.e. to tell learners the questions and then tell them the answers - but most learners ignored him and either chatted or prepared for other subjects. The lesson became chaotic.

• **General Science (School A Lesson 27):** The teacher handed out one photocopied page of notes on *The Human Reproductive System and Health* and another photocopied page with questions on an unrelated topic i.e. *Forces*. There were twenty-two multiple answer questions e.g.

  | The force by which the earth attracts a body to its centre, is called … |

The teacher instructed the learners to answer the questions in their notebooks. After giving the initial instructions, the teacher worked at her
desk for the remainder of the lesson. There was no interaction between
the teacher and the class about the text. Learners asked each other
questions about the text such as ‘What is potential energy?’ but they did
not ask the teacher. The teacher concluded the lesson by saying: ‘We
will do corrections on questions one to twenty-two tomorrow.’

• **Afrikaans (School A Lesson 29):** The teacher returned marked test
scripts to learners. She had written the answers to the test questions on
the blackboard. There were seven short comprehension questions and
four cloze sentences.

Example: Wat is die naam van die seun in die verhaal? = Geoffrey Adams

Learners were instructed to copy corrections into their notebooks. The
full test required learners to write eleven sentences or words. There was
no further discussion concerning the test. The teacher spent the first half
of the lesson marking at her desk and the second half walking around
the classroom watching the learners, most of whom had completed the
task by this time. There was very little interaction between the teacher
and the class; when the teacher did address the class it was to
repeatedly instruct them to be quiet.

• **English (School A Lesson 31):** (Note: This lesson is discussed more
fully in chapter six as an example of repetition led lesson activities). On
entering the classroom the learners found three grammar sentences
written on the blackboard

    Begin with the words in brackets:
    1. John had already won the hearts of Americans. (The hearts of
       Americans …)
    2. ‘Where will you go, Mary, when you are finished?’ the teacher asked.
       (The teacher asked …)
    3. President Mandela addressed the people. He then left for Pretoria.
       (Having addressed …)

The teacher did not greet the class or speak to them at all for the first
twenty-five minutes. He then wrote the ‘answers’ on the blackboard and
instructed the learners to ‘do the corrections’ in their notebooks. At this point he made one comment about how to do the work:

When the verb is in the past tense there should be changes.

He spent most of the lesson time walking around the classroom looking at learners’ notebooks. Learners occupied themselves in a variety of ways, talking, reading a newspaper, sleeping or doing work for other subjects.

- **General Science (School B Lesson 2):** On entering the classroom, learners found four questions requiring one-sentence answers on the blackboard, for example: ‘What builds up an element?’ The teacher instructed learners to answer the questions on the blackboard in their notebooks. There was no further explanation or discussion. The learners did the activity in their notebooks. After fifteen minutes the teacher wrote the correct responses on the blackboard. (The answer to the example given above was given as ‘Atoms’). The teacher spent most of her time walking around the class looking at learners’ notebooks.

- **General Science (School B Lesson 15):** On entering the classroom learners found a long text relating to different aspects of respiration written on the blackboard. This consisted of one paragraph relating to each of the following topics:
  - Human Breathing
  - Gaseous exchange
  - Cellular respiration
  - Breathing system and health: Air pollution

There were also two questions ‘for homework’ on electrostatics written on the blackboard. At the beginning of the lesson the teacher briefly instructed learners to copy the text into their notebooks and to then answer the homework questions. She then sat at her desk reading while the learners wrote. She answered two questions from learners about the
meaning of words on the black board; apart from this there was no
discussion of the text.

- **Geography (School B Lesson 3):** On entering the classroom, learners
  found the following three questions on the blackboard:

  1. What is a drought i.e. what do you understand about it?
  2. What are the causes of it?
  3. Mention the things/ measures that can be done/ taken to deal with it.

  The teacher instructed learners to work in groups to answer the
  questions. After twenty minutes he added a fourth question: ‘What are
  the consequences of it?’ He spent some time walking around the class
  then sat down at his desk for twenty minutes to read a newspaper. He
  concluded the lesson by asking learners to ‘report’ the answers. The
  reporting session proceeded as follows:

  L1: A drought is a dry period
  L2: A drought is a period whereby trees and grass are burnt.
  T: It happens for a long period.
  L3: Where there is no rain for many months
  L4: Where there is no rain for a month
  L5: There is no permanent vegetation
  T: Right, we all understand the meaning of drought – a dry, warm period.
  We all understand that drought occurs when there is a shortage of
  water for a long period. ‘ (End of period.)

- **Afrikaans (School B Lesson 10):** At the beginning of the lesson, the
  teacher instructed the class representative to write the correct
  responses to exercises done in previous lessons on the blackboard.
  The learners were required to refer to the sentences on the black board
  to do their ‘corrections’ for three exercises comprising a total of fifteen
  sentences. The sentences had been transformed into:

  the past tense (e.g. Die kunstenaar het inspirasie gekry),
  the passive form (e.g. Die grond word deur die man omgespit),
  the infinitive ‘om te’ form (e.g. Hy gaan dorp toe om ‘n boek te koop),
  and the negative form (e.g. Is die seun slim? Nee, hy is dom).
The teacher made only two further comments about the sentences, in each case pointing out that a sentence on the blackboard was incorrect and providing the correct version. On one occasion she added: ‘You can’t say ‘ge’ with “begin”’. There was no further discussion about this or any other sentence even though other incorrect sentences were written on the blackboard. The teacher remained seated at her desk throughout the lesson and made no comment when learners had completed the copying exercise and became increasingly unruly.

**Structure and sequencing of pedagogic text and activity**

Most commonly, the texts for the lessons were ‘found’ on the blackboard when learners entered the classroom, or copied onto the blackboard at the beginning of the lesson periods. Further text-related interactions between teachers and learners were largely absent from these activities and there was little if any mediation of learner engagement with texts. All thirteen lessons were characterized by long periods of silence on the part of the teachers. Texts were constituted as inert blocks of meaning, unrelated to a broader pedagogic discourse or to prior knowledge. At most, teachers gave brief verbal instructions at the beginning and/ or half way through the lesson, though in some cases there was not even this much interaction. The activity pattern was clearly familiar to learners who did not question the lack of text-related interaction or text mediation.

In all but one of the lessons, it was implicit that learners were expected to engage with texts individually. Only in one lesson (the geography lesson on ‘Drought’) were learners told to ‘discuss’ the text with each other ‘in groups’ but the teacher did not engage with this discussion nor were any other resources, guidelines or criteria provided to inform or guide the discussion. After the initial instruction to ‘work in groups’ the teacher proceeded with the activity as if learners had worked individually.

There was a marked similarity in the structure of activities across all thirteen lessons. All activities were constituted as written activities, and at least nine of
the thirteen incorporated two phases: completion of an exercise (or two different exercises relating to two different unrelated texts) followed by corrections or, in one case, a test. In some cases one lesson period was allocated to the first phase and a subsequent period to the second phase. Three of the remaining four activities were probably constituted in the same way, as teachers set exercises for which corrections might have been done in a subsequent period, but this was not explicitly stated during the lesson and the subsequent lesson was not observed. The remaining activity involved copying a text from the blackboard into notebooks.

Continuity from one activity to the next, or one lesson period to the next, took the form of movement from unmediated text presentation to unmediated text correction. The internal sequencing, and hence coherence, of texts was generally thematic rather than developmental. All the sentences, problems or notes that constituted a text related to one or more topic/s or competence/s such as rewriting sentences in the negative form or adding polynomials. However when more than one topic or competence was involved, the second did not build on the first. There was no interaction relating to previous learning.

There was a sense of monotony and lack of progression in all the lessons; in one English lesson a learner expressed frustration with this when he said to the teacher: ‘We have been doing this for a long time’. The teacher did not respond.

Apart from the movement from text presentation to text correction, sequential activities were disconnected. In two lessons, two different texts were delivered. In one case these comprised photocopied notes and questions relating to *The Human Reproductive System and Health* and *Forces* and in the other they comprised questions on *Human Breathing* and *Electrostatics*. In both cases, the two texts were unrelated, and no attempt was made to construct links between them.
Evaluation Criteria

In the absence of text-related interaction between learners and teachers, there were very few references to evaluative criteria for learner productions. In the 'corrections' phases of lesson activities, learners were provided with models of correct responses, or appropriate productions. However the correction phases were constituted as text presentation rather than text mediation activities. Teachers did not provide learners with criteria for recognizing and producing correct responses; they were not told, or given an opportunity to find out, why a particular response was or was not correct. Instead, learners were required to simply identify incorrect answers by comparing their productions to a correct model and replace incorrect answers or statements with correct versions. Only very occasionally did teachers make comments such as ‘Do not write ‘om te’ as one word’ or ‘You cannot write ‘ge’ before ‘begin’”, and when they did these were isolated comments rather than part of a full explanation.

In four lessons verbal answers to questions were elicited from learners in the context of 'doing corrections'. These responses were often incorrect, indicating that learners had not acquired the principles that would enable them to give correct responses. In such cases teachers either found other learners who could answer the question correctly or provided the correct responses themselves, with no explanation as to why one response was incorrect and the other was correct. On only two occasions, during the thirteen lessons, did individual learners ask teachers text-related questions to which they received answers. These answers were addressed to individuals and not relayed to the class as a whole.

In English and Xhosa lessons, teachers interacted in these languages and in so doing provided models for use of the languages, but there was no reflection on this use. All four Afrikaans classes were conducted in Xhosa; only when teachers read sentences from the blackboard did they use Afrikaans during these lessons.
Regulation of the social order

While teacher-learner interaction relating to texts was very limited, and sometimes completely absent, teacher-learner interaction relating to regulation of the social order was more frequent. Teachers made comments to the class as a whole or to individual learners about regulation of learner behaviour, such as telling learners to be quiet or commenting on matters such as non-conformity to uniform rules or chewing of gum. In six of the lessons regulation of learner behaviour was accompanied by threats or derogatory comments such as the following:

I’ll hit you.
I don’t know what you come to school for; you just follow the others.
Do you want me to embarrass you?
Have you studied for the test or have you been drinking? Go and look for a char job in town.

Regulation of learner behaviour was weakly harnessed to pedagogic purposes, if at all. Instead, teachers focused largely on controlling learner behaviour for the sake of order as an end in itself. The aspects of learner behaviour that drew regulative responses from teachers were on most occasions talking (‘making a noise’) dress and movement. In other words, regulation of the social order was constituted largely as regulation of learners’ bodies rather than regulation of learners’ engagement with texts.

Space/time and technology use

Since teacher-learner interaction was minimal, lesson activities were constituted largely as repetitions of established space/time and technology use procedures. Engagement with texts generally kept learners occupied for less than half the available lesson time. Most lesson time was not spent on text transmission, but rather on containment and disciplining of learner bodies and movement. Not only were texts structured so as to conform to a particular pedagogic practice routine, but this routine was constituted as a minor component within a dominant corporeal routine. Instead of space/time and technology use being harnessed and specialized to the transmission of texts,
texts were adapted to rhythmic routines. Difference was subordinated to repetition.

In only two of the lessons were learners required to do an activity that occupied the full time period. Eleven out of thirteen lessons involved activities that occupied learners for less than half the available lesson time, which was usually fifty minutes. Five of these eleven activities were substantially shorter, requiring learners to write or complete and then correct between three and six sentences. Two of the lessons started twenty minutes late and in ten of the lessons learners had stopped working completely at least ten minutes – and sometimes up to thirty minutes – before the end of the period. Learners spent the balance of the available lesson time waiting, or engaging in conversations and activities unrelated to the lesson text.

The rhythm of learner movement in these lessons was unvaried; learners entered the classroom, sat at their individual desks, completed a task in their notebooks and then waited or looked for ways to occupy themselves until the end of the lesson. In one case the teacher instructed learners to move ‘into groups’ but most learners did not move. Instead, most learners continued working individually as the group activity was given no further structure. While learners occasionally became distracted from the lesson, they very seldom moved from their desks. All but two lessons were interrupted by learners and teachers from outside the class, and five teachers either left the class during the lesson or took a cell phone call during the period.

The rhythm of teacher movement also followed a recognisable pattern. Teachers either initially said nothing at all or addressed the class briefly from the front of the class, then divided their time between (a) moving from desk to desk looking at individual learners’ notebooks or generally watching learners and (b) sitting at their own desks marking, reading, watching learners or just waiting. Judging by learners’ responses when teachers moved to their desks, it seemed that the space of teachers’ desks symbolically signalled to learners that teachers were unavailable for interaction. On the few occasions when learners did address teachers seated at desks, they did not do so from their
own desks but rather stood up to approach the teachers, as one might if someone were in a separate or private space.

Ten of the thirteen lessons were characterized by a particular pattern and rhythm of technology use involving blackboard and notebooks: a set of questions or notes was placed on the blackboard or distributed as photocopied notes and learners were required to copy the notes or write completed versions of the texts in their notebooks or (in one case) on a loose piece of paper. Learners did not use textbooks, although in two lessons, teachers copied texts from textbooks onto the blackboard. The teacher then placed completed or corrected version on the blackboard - or nominated learners to do so - and learners were required to correct the version in their notebooks.

The geography lesson on ‘Drought’ varied slightly from this pattern in that learners were not required to write answers to the questions in their notebooks. The teacher introduced this lesson as a group discussion. The effect of this was that, at most, only one learner in each group of six or seven wrote answers to the questions, and he or she did so on a loose sheet of paper rather than in a notebook. In effect, the group work activity replicated the individual work activities, with fewer learners writing.

Most lessons took place in the usual generic classroom space, with three exceptions. These three periods took place in two classrooms – a science laboratory and a home economics laboratory - that were structurally specialized. However, being in a specialised space made no difference to the way lessons were taught. A Xhosa lesson was taught in a room set up as a Home Economics laboratory: learners were seated at tables that were fixed to the floor and for many the view of the teacher, blackboard and each other was blocked by oven stations. The teacher nevertheless continued as if she were in a conventionally structured classroom, requiring learners to remain in their desks and copy from the blackboard.
The visual coding of the rooms was not specialized; the display areas were either bare or there were a few decorative posters and pictures that were not subject or curriculum specific. Posters were either purely decorative or carried public health messages, or advertisements for products and jobs. In only two of the rooms were any curriculum specific items such as maps and learner projects on display, and these were few, old and tatty. As the classrooms were very bare, the visual tone was set by items that were visible. In almost every classroom there was an empty, often damaged cupboard and cleaning equipment such as brooms, buckets, mops and bins standing near the door. There were also duty rosters for classroom cleaning on otherwise bare or nearly bare walls.

**Sub-group two: Repetition led activities for which teachers were absent, but in which lesson texts were nevertheless selected and delivered (Three lessons).**

In this section I will analyse three more lessons in which, as in the last sub-group, the teacher made a text available to learners but did not engage in sustained interaction with learners. In these three lessons, however, the teacher was not actually present in the classroom during the lesson. In spite of this, lessons followed very much the same rhythm as when teachers were present. While teachers who were absent obviously did not directly control the lesson activities, they did so indirectly through relayed instructions and through the expectations of both teachers and learners that the habituated rhythms of activity would continue. There was very little difference between these lessons and lessons in which teachers were present but did not interact, or interacted very little, with learners. In effect, the corporeal space/time and technology use rhythms set up in prior lessons provided the control for these lessons.

**Overview of lesson activities with specific reference to text selection and delivery**

- **General Science (School A Lesson 20):** On arrival in the classroom, learners found the following instruction on the blackboard:
Finish your research for tomorrow.

None of the learners followed the instruction. The ‘research’ tasks they had been given involved finding information and learners had no resources with them with which to do this. Instead of doing the set task they did homework for other subjects or entertained themselves in various ways. A few wandered in and out of the classroom, but the majority remained seated throughout the period.

- **Xhosa (School B Lesson 7):** Learners initially occupied themselves in various ways. Many copied notes from the notebooks of other learners. After half an hour a teacher delivered a message and a textbook from the Xhosa teacher (who was at the school) to one of the learners who then proceeded to copy a list of Xhosa idioms and their meanings from the textbook onto the blackboard e.g.:


The whole class spent the remainder of the lesson copying these notes from the blackboard into their notebooks.

- **Xhosa (School B Lesson 12):** Learners initially occupied themselves in various ways; quite a few started copying the previous day’s notes that were still on the blackboard into their notebooks (See lesson 7 above). One of the learners arrived five minutes late with a textbook that she had collected from the teacher in the staff room. This learner had been copying Xhosa idioms and their meanings from a textbook onto the blackboard the previous day, and the Xhosa teacher had instructed her to continue to do so in this lesson e.g.:

  Xa Kusengwa akusengelwa phantsi, kusengelwa ethunzeni. - Izwi lomfo onenyaniso aliwi phantsi, luyaphulaphulwa.
The learners all copied the list into their notebooks; this took ten to fifteen minutes. Learners then reverted to occupying themselves in other ways. Some took the opportunity to copy notes from the notebooks of other learners.

**Structure and sequencing of pedagogic text and activity**

Teachers communicated with learners indirectly through text delivery, relayed from the teacher to the learners via another teacher, a learner (the class representative) and the blackboard in the three lessons respectively. There was no text mediation structured into the texts, and obviously no possibility of direct text mediation through interaction between teacher and learners. In the Xhosa lesson activities, some learners did occasionally ask other learners for explanations, but on the whole the text was simply copied without further engagement by learners.

**Evaluation Criteria**

None of the three texts were accompanied by any information for learners concerning what was required beyond, in two of the lessons, the act of copying a text into notebooks. In the case of the science lesson, the lack of resources and mediation, and the under-specification of the task, resulted in learners not engaging with the text at all during the lesson time.

**Regulation of the social order and space/time and technology use**

In two of these lessons regulation of the social order was effected through text selection and reliance, by teachers and learners, on a repetitive space/time and technology routine. It was clear that this mode of indirect lesson delivery was not unfamiliar to learners. Writing the lesson text of the day on the blackboard was understood by learners to be one of the class representative’s duties.

In spite of the absence of teachers from the classroom and the delayed start to lessons, learners generally behaved very much as they did when teachers were present; they entered the classroom and in most cases remained seated
in their desks for the duration of the lesson. Some took out their notebooks and copied work they had missed from borrowed notebooks. Only in the science lesson was there more movement in and out of the classroom than usual. In the absence of teachers, learners frequently commented on each other’s behaviour, telling others to sit still or to be quiet. Here learners imitated their absent teachers in that they focused on regulating the speech and bodies – noise and movement – of their colleagues rather than on engagement with texts.

The text for the science lesson did not have the familiar routine format; learners were not required to engage with or copy a text that had been placed on the blackboard. In this case, the activity was abandoned, at least for the duration of the lesson period. Learners reverted to following the same routine with regard to texts from other lessons: many copied texts for lessons that they had previously missed.

With regard to technology use, learner activities during these periods were very similar to those in which teachers were present in that they were organized around locating texts first on the blackboard and then relocating them into learners’ notebooks.

As in the case of repetition led lessons in which teachers were present, the activities in the two Xhosa lessons occupied less than half the available lesson time. These activities were initiated half way through the lesson time on each day as it took nearly half the lesson time for the instructions to reach the class, even though the teacher was present at the school on both days.

For these lessons, as for the other repetition led lessons, learning spaces and display areas were not specialized. The science lesson took place in a room that had the dimensions of a laboratory but there was no specialized furniture of equipment other than the desks and blackboard found in more generic classrooms. The display areas of the science and the Xhosa classrooms were completely bare of any display and the cupboard in each room was empty. As
usual, cleaning equipment such as brooms and buckets were positioned prominently near the door.

The absence of teachers gave learners the opportunity to ‘catch up’ work they had missed. This involved copying texts from other learners’ notebooks into their own. In one of the two Xhosa lessons, learners who had been absent the previous day also took the opportunity to copy notes that were on the blackboard from the previous day’s lesson into their notebooks.

**Sub-group three: Repetition led activities for which teachers were present but no texts were selected (Three lessons)**

There were three lessons in which teachers were present and in which no pedagogic texts were made available to learners. As there were no texts and no actual pedagogic activities, teacher interactions with learners in these lesson periods were constituted entirely as social regulation through interaction and space/time and technology use.

**Overview of activities**

- **English (School A Lesson 23):** On entering the class the learners found that their usual teacher was absent and had been replaced by a relief teacher. She introduced herself and instructed learners to just ‘carry on’ with whatever they had been doing in literature periods. Learners explained that they could not do so as they had not been told to bring any books to school; only one learner had a literature book with her. The teacher then initiated a discussion. This was initially intended to be about the prescribed literature text, but it soon drifted into a general discussion in which learners persuaded the teacher to tell them about her own life circumstances. Eventually the teacher managed to direct the discussion back to the literature text and to persuade volunteers to ‘tell her the story’ but by this time most learners had lost interest in the discussion and were otherwise occupied.
This lesson had a topic - ‘the literature book’ - rather than a text. While there was an attempt at a discussion of the topic and attempts to narrate ‘the story’ of the book, the teacher was not familiar with the book and had not designated a particular issue, aspect or section of the book as a lesson text.

**Guidance (School B Lesson 1):** The learners straggled in and were seated in the usual manner. The teacher spent the lesson moving around between the desks ‘watching’ the learners. She did not address the class as a whole but made numerous comments to individual learners including the comment: ‘I do not wish to teach you. I am just here to watch you.’ She told some learners who had opened their agriculture and geography books that they should put these books away and study Xhosa instead. Her regulatory strategies included hitting two learners (one for wearing a jacket which was not part of the school uniform and another for playing with an apple) and swearing at others. Most learners spent the time reading or writing in their notebooks.

**English (School B Lesson 9):** The learners entered the classroom and were seated in the usual manner. The teacher arrived after fifteen minutes and immediately went to sit at her desk and commenced marking a pile of scripts. She remained seated at her desk for the rest of the lesson. At no point did she address the class as a whole, not even to greet the class. Individual learners approached her desk to enquire about the results for a test they had written in a previous lesson, but the teacher told them to leave her alone. She also spoke to individual learners to silence them, to ask for a sweet and to borrow stationery. Although this was an English lesson, all communication was in Xhosa. As this was the second last period of the day and the fourth period of the day in which no teaching took place, very few learners used the time to do work for other subjects.
Regulation of the social order and space/time and technology related practices

In two of these periods, activities were constituted purely in terms of regulation of the social order through control of space/time and technology use. Learners were free to use their time as they chose, providing they did not move around or make a noise. Apart from one comment about learners doing work in the ‘wrong’ subject, these two teachers made no reference to pedagogic activities.

The third teacher made some attempt to initiate a pedagogic activity, but when this failed she fell back on ‘chatting’ to some learners while others occupied themselves. This teacher was a relief teacher, and was not familiar with practices at the school. She had however assumed that she would not actually need to teach a lesson, and that learners would ‘just carry on’ with work by themselves.

It was apparent that learners did not expect to be taught in these periods. In all three periods they straggled into class more slowly than usual. In the case of two lessons, they still arrived before the teachers who were ten and fifteen minutes late; only the relief teacher was waiting when the class arrived. Once the learners were in class, most fell into the routine of sitting in their desks and taking out notebooks. Two of the periods took place early in the day, and one took place towards the end of the day. A greater proportion of the learners used available time to copy or read notes in the earlier lesson periods than in the later period but in each period there were some who just sat and did absolutely nothing.

Display areas in all three class spaces were either completely bare or there were only two or three posters with motivational messages (e.g. ‘Be wise not streetwise’); there was also an advertisement for lubricating oil. There was only one item on display – a hand drawn map – that was explicitly curriculum related. In all three rooms there were the usual reminders that classrooms needed to be cleaned: a list of names of learners who had neglected to do their classroom cleaning chores on the blackboard and cleaning equipment.
near the door. All three classrooms also had the usual empty shelves, cupboards and bookcases, one of which was broken.

**Sub-group four: Repetition led activities for which no texts were selected and no teachers were present (Seven lessons)**

There were seven lessons in which teachers were not present and did not make arrangements to make pedagogic texts available to learners. Two of these took place at School A; the rest were at School B. This was indicative of stricter control of teacher absenteeism and better management of relief teachers at School A.

An analysis of these lessons shows how rhythms of space/time and technology use that underpin pedagogic activities as repetition are maintained even where there is no pedagogic activity and no teacher present.

**Overview of activities**

- **English (School A lesson 17):** Learners followed the usual rhythm of sitting at their desks and chatting or working. It was the second period of the day; most learners calmly read or copied notes into their notebooks.

- **Xhosa (School A, lesson 33):** Learners drifted slowly into the class, but after seven minutes most were seated. Only two took out notebooks, the rest chatted, slept or sang until the end of the lesson. It was the last lesson of the day and some learners begin moving out of the room half an hour before the end of the period.

- **English (School B lesson 4):** Learners followed the usual rhythm of sitting at their desks and chatting or working from notebooks. It was the second last lesson of the day. About ten of the 32 learners in the class worked; a number just sat and waited.

- **Agriculture (School B Lesson 5):** Learners followed the usual rhythm of sitting at their desks and chatting or working from notebooks. It was
the first lesson of the day and most learners took out notebooks and read or copied notes. All but three remained quietly seated for the entire lesson.

- **Geography (School B Lesson 6):** The teacher was present at the school but did not come to the class during this period. Learners followed the usual rhythm of sitting at their desks and chatting or working from notebooks. It was the second lesson of the day in which the teacher was absent and fewer learners actually worked. It is likely that those who had wanted to copy notes had done so in an earlier period. They nevertheless remained fairly still and quiet.

- **Agriculture (School B Lesson 11):** Learners did not expect the teacher to come to class so many straggled in up to 25 minutes late. Once they were in class they followed the usual rhythm of taking out their notebooks and reading or copying notes. Only a few moved around inside or out of the classroom.

- **Geography (School B Lesson 13):** Learners followed the usual rhythm of sitting at their desks and chatting or working from notebooks. It was the third lesson of the day with no teacher so fewer learners - about half - actually read or wrote in their notebooks for some part of the lesson time. There was much noise outside as most teachers were not in class, and consequently there was more coming and going in and out of the class than usual.

**Regulation of the social order through space/time and technology use rhythms**

The rhythm of learner activities that characterized repetition led pedagogic activities was maintained in these periods, in spite of the absence of teachers and texts. Most learners sat quietly in desks reading notes, copying notes from a friend’s notebook or just chatting. There was a clear pattern of an increase in number of learners chatting and a decrease in number of learners working as the day progressed. Relatively few learners deviated from this
rhythm to leave the class or even to move around during the period, though instances of this also increased as the day wore on. Learners from outside the class intermittently popped in to the classroom to speak to a learner or borrow a book.

As usual, learners spent this time in classes in which display areas were either completely bare or contained between two and four items. These included rugby fixture lists, a pencil drawn map of South Africa, a motivational message, advertisements and a few poster projects with pictures of animals cut out of magazines and one word labels such as ‘pig’ and ‘dog’. Each class also had the usual open, often broken, empty cupboards and cleaning equipment such as buckets, dustpans and mops.

**Summary**

The four types of repetition led lesson periods presented here are differentiated in terms of whether there is in fact any pedagogic activity during the period, and whether teachers are present or absent. The analysis suggests that the differences between these groups are much less substantial than one might assume. Activities in all four groups are strongly driven by a repetitive pattern of space/time and technology use to which the text – if it is delivered at all – is adapted and subordinated. This pattern does not include text mediation through interaction between teachers and learners. Where texts are delivered, text-related activities often occupy learners for a relatively short period of available time. Ultimately these periods of time are more substantively about disciplining learners’ bodies than they are about pedagogic texts and discourses.

**Comparisons across modes and schools**

This section presents a brief discussion of the distribution of pedagogic modes and the articulation of these modes with time use and technology use. The two schools are compared with regard to these aspects of the data. This comparison is supplementary to the main purpose of the analysis, which is to compare different pedagogic modes that are present across both schools,
rather than to set up a comparison between the two schools, as was discussed in chapter five.

Some of the points raised here are based on quantitative data analysis. This analysis is intended to explore further implications of the qualitative analysis in the previous section.

**Articulation of pedagogic modes with time use and technology use across schools**

The table below shows the distribution of lesson periods in the various pedagogic modes across the two schools. Both discourse led lessons were taught in School B and four out of five convention led lessons were taught in School A. Given the small overall number of lessons, these differences cannot be taken as representative of differences in pedagogic practice throughout the grade at the two schools. However, the table does show that repetition led lessons are the most common pedagogic mode evident in formally observed lessons.

**Table 4: Distribution of pedagogic modes at School A and School B**

<table>
<thead>
<tr>
<th>Pedagogic mode</th>
<th>No. of Lessons: School A</th>
<th>No. of Lessons: School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discourse led pedagogic mode</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Convention led pedagogic mode</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Repetition led mode 1. Teacher present, and text delivered</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Repetition led mode 2. Teacher absent. Text delivered</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Repetition led mode 3. Teacher present. No text delivered.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Repetition led mode 4. Teacher absent – no text delivered.</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

A comparison of the relation between time available and time used for interaction between teachers and learners in each of the two schools is of interest. The table shows that observed teachers were present in class and delivered texts more often in School A than in School B. Teachers were present in class an average of 21 minutes per period in School B compared to 38 minutes in School A. In School B teachers were absent for eight out of
sixteen lessons as compared to three out of seventeen in School A. School A did more effectively enforce the requirement that teachers attend classes and monitored teacher absenteeism more efficiently than did School B, and the difference probably reflects this.

School A also reduced the length of lesson periods less often and to a lesser degree than did School B. While all periods in both school were supposed to be 55 minutes long, frequent shortening of lesson times reduced the average lesson period for observed lessons to 50 minutes at School A and 41 minutes at School B.

In spite of these differences in ‘time on task’ grade nine learners (unlike grade twelve learners) at School A did not consistently achieve better results than did grade nine learners in School B, as was discussed in chapter one. This is surprising if one assumes that more time on task leads to better results. The time use rhythms at the two schools might offer an explanation for this puzzle. In spite of the considerably larger proportion of time that learners were in lessons - with teachers present - at School A, observed teachers at School A did not spend more time actually teaching than did teachers at School B. In lessons observed at School A the average time that teachers spent interacting with the class as a whole per lesson was 11 minutes, as compared to 10 minutes at School B. This amounts to approximately 22% of class time in each school.

Given the difference in available time, the similarity in interaction time is remarkable. Just as people who are on holiday and people who are in a rush to get to work might spend a similar amount of time on the habitual, rhythmic act of brushing their teeth, so teachers at School A – who had more time available to them – continued to structure their lessons in much the same way as teachers at School B who had less time available to them. At School B observed teachers were more likely to absent themselves from class when they were not planning to teach a lesson. At School A observed teachers were more likely to deliver a text without interacting with learners to mediate the text. But while teachers at School A spent significantly more time in class, and
more often delivered texts, they did not on average spend significantly more time teaching, or mediating the texts. This analysis of actual time use supports the suggestion that similar habituated patterns of repetition led pedagogic practice shape most (but not all) pedagogic activities across both schools.

While learner absentee rates were relatively high at both schools, these rates were partly responsive to learner expectations of teacher practice. The deputy principal at School A commented that he was able to relate the rise and fall of absentee rates in any given class to the timetable. Attendance would rise for the lessons of teachers who were considered by learners to be good, and fall when no lessons with ‘good’ teachers were on the timetable. Learners would arrive or leave at break, depending on when teachers considered to be good were teaching. The table below shows that learner numbers did indeed drop at break on three of the six observation days.

On average, about one in six learners at each school were missing from class during lessons on the six observation days. The rate of skipping class was slightly higher at School B, but rates of full day absenteeism were similar at the two schools. In both schools the number of learners absent from class for the day varied from three to nine on different days and the number that came to school but skipped lessons varied between one and eight for different lesson periods. Numbers tended to drop after break and – in one instance - when a test was expected.

The relation between variations in learner attendance and learner perceptions of good teaching suggests a mutually reinforcing relationship between a particular pedagogic mode and learner attendance. Teachers delivered texts – often very short texts - in such a way that learners could copy them from friends if they missed class, and learners who missed class found it easy to catch up by simply copying the text from a friend. What was the point in attending lessons when, as a learner put it: ‘We do class work with three sentences every day’. Learners did indeed spend much of their time at school
copying notes from the books of other learners, suggesting that they frequently received texts in this indirect manner.

Table 5: Number of learners present in each formally observed lesson period at School A and School B

<table>
<thead>
<tr>
<th></th>
<th>Class list</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A Day 1</td>
<td>43</td>
<td>32*</td>
<td>36</td>
<td>37</td>
<td>37</td>
<td>35</td>
<td>31</td>
</tr>
<tr>
<td>School A Day 2</td>
<td>43</td>
<td>39</td>
<td>38</td>
<td>39</td>
<td>38</td>
<td>38</td>
<td>39</td>
</tr>
<tr>
<td>School A Day 3</td>
<td>43</td>
<td>39</td>
<td>39</td>
<td>38</td>
<td>34</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>School B Day 1</td>
<td>41</td>
<td>32</td>
<td>32</td>
<td>24</td>
<td>32*</td>
<td>32</td>
<td>30*</td>
</tr>
<tr>
<td>School B Day 2</td>
<td>46</td>
<td>43</td>
<td>42</td>
<td>41</td>
<td>40</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>School B Day 3</td>
<td>46</td>
<td>41</td>
<td>39</td>
<td>42</td>
<td>42</td>
<td>37</td>
<td>37</td>
</tr>
</tbody>
</table>

Note: Bold italicized numbers indicate lessons where teachers were absent, and asterisks indicate lessons that were not included in the analysis. The double line indicates the time of the break in the day’s lessons.

**Distribution of pedagogic modes and technology use**

Teachers in both schools had limited technological resources with which to work. The most easily available resources were blackboards, chalk, notebooks and pens. At both schools libraries were under resourced and were more often used as study areas than resource centres. A single photocopier was available at both schools. Both schools had a policy of distributing textbooks only to students who had paid their fees, and for some subjects textbooks were not available at all. The teachers were the conduits of texts from other sources – such as textbooks – to learners. Written activities primarily involved the relay of these texts into learners’ notebooks.

All activities within all three modes of pedagogic practice involved the use of some or all of these more easily available resources and only one went outside of these even to the extent of requiring learners to use their own textbooks. Thus all lessons were devised within the affordances of available technology.
All teachers had necessarily to take into account the unpredictability of bell times and learner attendance. All teachers were exposed to a pedagogic culture in which teacher absentee rates are high and teachers commonly use class time for activities unrelated to the current lesson, such as marking tests. And all teachers were exposed to a common pedagogic practice routine that successfully co-ordinated all these factors. This routine has been described here as repetition led practice: the delivery of a text without text mediation or teacher-learner interaction. The ease of falling into this routine was facilitated by the fact that learners were familiar with it.

The data presented in this chapter shows that ten out of eighteen teachers adopted this routine. Another five of the eighteen teachers used the available time to interact with learners in order to guide engagement with the text. A further two engaged with learners in a way that potentially gave learners access to recognition and realization rules for a specific pedagogic discourse. One teacher shifted from a discourse led pedagogic mode in one lesson, to a repetition led mode in another.

This analysis suggests that teachers in the study had three potential referents for practice, and categorizes pedagogic activities according to their dominant referents. Each mode sets up a different relation between repetition and difference. This leaves open the question as to why a particular referent is dominant in the practice of a particular teacher in a particular lesson, and whether this is a question of choice, contextual constraint or subject knowledge and pedagogic competence.

As is mentioned above, the data does offer one example of a teacher who taught one discourse led lesson as well as one repetition led lesson. This teacher clearly had the subject knowledge to do the former, and yet fell back into the more common repetition led pedagogic routine in a different lesson. As this case suggests, it is unlikely that teachers’ modes of practice can be explained solely in relation to their subject knowledge; 28 of the 51 teachers who responded to the questionnaire said that they had graduated from various universities and technikons, indicating that a substantial proportion of
teachers in the two schools had appropriate levels of teacher education. While this does not provide direct information about teachers’ subject knowledge, it does suggest that teachers were not generally under-qualified. In general, the data would suggest that subject knowledge is a necessary but not sufficient condition for discourse led pedagogic practice, and that contextual affordances and pedagogic culture also shape pedagogic practice.

**Conclusion**

The thirty-three lessons analysed here present clear patterns of discursive, interactive and space/time/technology use practices. The majority of these lessons are weakly specialized in terms of the harnessing of pedagogic practices to discursive purposes.

The next chapter will analyse the relation between the classroom practices analysed here and broader institutional practices.
Chapter eight: A rhythmanalysis of practices at the level of the school

The previous chapter presented an analysis that categorized lessons in relation to three pedagogic practice modes and showed a dominant lesson pattern in both schools to be the insertion of unmediated texts into established corporeal space/time and technology routines. This chapter locates these pedagogic practices in the broader context of the school. The chapter will suggest that, in so far as it can be said that the staff at each of the two schools comprise practice communities, interactions within these communities did not focus strongly on pedagogic activity. Structured discussions in departmental meetings (i.e. in the technical domain) that did focus on pedagogic activities were concerned primarily with monitoring – or externally framing - the pacing of text delivery rather than developing text mediation strategies. In this way, text delivery was itself constituted primarily in relation to rhythm pacing of delivery.

Outside of subject department meetings, informal exchanges about pedagogic practice were not common within the pedagogic culture of either of the two schools. At the level of the classroom most teachers did not interact with learners about pedagogic texts or relate such texts to the principles of particular pedagogic discourses. At the level of the school interaction between teachers about pedagogic practice was limited while reflection on text mediation and its relation to pedagogic discourses was not common within the pedagogic culture of the schools.

Management activities (in the administrative domain) focused largely on policing corporeal activities and space/time rhythms and boundaries within the school. These rhythms were largely repetitive, but were frequently adapted to non-pedagogic disruptions.

These two sets of activities at the level of the school reflect and articulate with the constitutive facets of the dominant pedagogic modes in classrooms:
unmediated text delivery and assessment and corporeal space/time and technology use rhythms.

**Interactions between teachers**

Text delivery was monitored by subject department committees that controlled and synchronized pacing and progress through the syllabus. The primary task of these committees was to establish what content should be covered for a particular test or examination. In response to the questionnaire item: ‘What do you usually do or discuss during these [i.e. departmental] meetings’, only one topic was mentioned by more than half the respondents (i.e. by 23 of 33 respondents to this item). This was expressed variously as: ‘Syllabus coverage’, ‘What to cover in examinations’, ‘What to cover during a period’, ‘Scheduling of work’, ‘When to hand in question papers and who is to set papers’ and ‘How far one has gone with the syllabus; when to write tests’, ‘Getting in marks and setting examinations’. The only other topic that was mentioned more than twice referred to dealing with problems as they arose. These responses would suggest that communication in departmental meetings at both schools was most commonly, but not exclusively, aimed at regulating and synchronising pacing of transmission and reacting to ad hoc problems. There was no indication in responses to the questionnaire that approaches to pedagogic practice or text mediation were discussed in any substantive way.

Approaches to pedagogic practice were also not commonly discussed informally between teachers, for example in the staff room after school or at break. Teachers’ responses to a question in the questionnaire about how time outside class was used were consistent with this conclusion: while the majority mentioned that they would do lesson preparation, marking or administration, only three out of thirty-three teachers mentioned that they would discuss problems that came up in class or ‘share ideas’.

It is possible that discussions about approaches to pedagogic practices could have taken place at times and places when and where researchers did not
observe them, and that these were simply not mentioned in the questionnaire. However, such interactions were not reflected in the dominant tone of the pedagogic culture, as observed in the staff room. The following exchange between the principal of School A and a group of teachers in the staff room captures something of this tone. The principal had commented on the fact that teachers were chatting rather than preparing lessons or marking during a ‘free’ period:

| T1:       | We have had enough of working. 6 |
| P:        | So long as you come to school prepared, tomorrow. |
| T1:       | I don’t have to prepare anymore. Everything is in my head. Experience talks. |
| P:        | Then you should be teaching the standard tens. |
| T1:       | No ways. There is too much conflict teaching the standard tens. |

At School B there was a strong demarcation between work time and break time. For example, there was an understanding among teachers that management should not expect teachers to be available to talk about work related matters during break times. This was evident in a number of comments made by staff at the two schools, such as the following exchange between a deputy principal and a staff member during break at School B:

| Deputy:  | Mr M., can I see you quickly please. I just need to ask you something quickly |
| Teacher: | Oh yes, but it is break time (starts to leave) |
| Deputy:  | I know, I'm sorry, but just quickly. |

In this exchange the deputy principal was clearly apologetic for raising a work related matter during break time, and the teacher felt it was within his rights to refuse to allow the deputy to intrude on this time with work related matters.

At School B the understanding that work should not intrude on break times extended to meetings and commemoration services. These were held during class time or after school but before three o'clock, rather than at break. At

6 This conversation was recorded in English, in note form, from a conversation in Xhosa. At the time of the conversation the system of ‘standards’ had already been changed to a system of grades, but the terminology of standards was still commonly used.
School A, on the other hand, staff meetings were always called after school rather than during school time. This is not to suggest that no teachers worked during break at School B. A significant minority of teachers did do various administrative or preparation tasks during the observed break times. But these activities were not typical within the pedagogic culture.

Questionnaire responses indicated that pedagogic matters did not regularly appear on the agenda for staff meetings at either of the schools, with one exception: the logistics of examination organisation. The introduction of Curriculum 2000 was imminent at the time data was collected; yet only one teacher recalled that this matter had come up at a staff meeting.

It is not surprising that pedagogic matters were not frequently discussed between teachers at breaks and at staff meetings. These times seldom provide a forum for such discussions in any schools. What this analysis does suggest, however, is that there was little evidence of such discussions taking place in any substantive way formally or informally anywhere in the life of either of these two practice communities.

**School management and space/time rhythms**

Management activities at both schools were strongly focused on the regulation of teacher and learner presence, absence and movement and the maintenance of space/time rhythms and boundaries. The energy spent on these activities was an indication of the lack of specialization of corporeal space/time rhythms at the level of the school. Specialized rhythms were not established or institutionalized, and therefore required constant policing and maintenance.

The maintenance of specialized rhythms and space/time boundaries was all the more difficult because leadership in each of the schools was not distributed: the task fell primarily to the principals. There were management committees in both schools, but there was little evidence of their operation in the day to day running of the school. When each of the two school principals was tracked for one day, only one out of eighty-four of the matters that arose
in the two days was delegated to a committee or to another staff member. The matter that was referred to a committee was a request by a visiting insurance salesman to address the staff in School B. For the rest, every matter that arose - including requests from students for a signature on a leave of absence form, a complaint about the behaviour of other children, supervision of the fixing of burglar bars and the extension of blackboards - was handled by the principal himself.

Associated with the lack of distributed leadership was a strong tendency for all activities to be constituted as immediate reactions to matters arising. Only three of the activities principals engaged in during the two days were future, or planning, oriented, viz. writing a letter relating to a new post, discussing a workshop and making a telephone enquiry to a department official regarding the new curriculum. All eighty-one other activities were either reactive, or related to short term objectives such as reading mail or planning an agenda for a meeting to be held later the same day.

This reactive and present oriented approach to daily management tasks was also evident in the management of space/time boundaries, which occupied the greater part of the days on which the two principals were tracked. Principals’ activities oriented towards policing space/time boundaries involved monitoring movement and ensuring that both staff and students were where they were supposed to be at any particular moment. This pattern of principals’ time use was consistent with less systematic observation of activities in the school over a thirty-month period.

These present oriented activities included the following:
- Checking that the gates were locked after the bell at the beginning of the day and after break
- Reprimanding teachers and learners for not moving to class after the bell
- Reprimanding the caretaker for not controlling the gate adequately
- Checking that teachers and learners were in class
• Checking that students and invigilators were in the right room for a ‘trial’ examination
• Searching for a missing invigilator and finding a substitute
• Checking the timetable for ‘trial’ examinations
• Informing classes their teachers were absent
• Finding a room for learners whose teacher was absent, leaving her classroom locked
• Talking to or reprimanding learners and teachers who had missed school, or arrived late
• Reprimanding a teacher for missing a parent meeting
• Giving teachers and learners permission to be late or absent
• Setting punishment tasks for learners who had arrived late or who had skipped a class
• Giving instructions to substitute teachers
• Filling in forms for payment of substitute teachers
• Finding a ‘free’ teacher to ‘watch’ the class of an absent teacher
• Setting punishment tasks for learners who were misbehaving in the classes of teachers who were absent

The principals at both schools would frequently usher teachers out of the staff rooms at the beginning of the day and at break. The principal at School A was more persistent, systematic and generally fierce in his efforts to ensure that teachers attended lessons. This principal had also instituted a system of publicly recording – on a board in the staff room - the number of days when staff members were absent. This approach appeared to have borne some fruit as fewer teachers absented themselves from observed classes in School A than in School B.

While the two principals dealt in a disciplinary way with numerous space/time transgressions relating particularly to absenteeism and late coming, they dealt with surprisingly few other disciplinary matters on the days they were tracked. Only two activities out of the eighty-four related to other kinds of disciplinary matters. In one case, learners were sent to a principal because they had not
paid fees, and on another occasion a female learner complained to a principal about male learners who were ‘being rude’ to her. Even where principals attended to learners who were ‘making a noise’ this was connected to the absence of teachers who would otherwise have kept learners quiet. There were no disciplinary activities directly related to learners’ pedagogic activities. At the level of the school as in the classroom, social order was constituted largely as regulation of the movement, presence and absence for its own sake without reference to pedagogic tasks and purposes. It is unlikely that, on these or any other days, other types of transgressions and disruptions did not occur at all in the two schools, yet they were not brought to the attention of the principal either directly or indirectly. Instead, the daily rhythm of both principals’ activities focused their attention on ensuring that everyone was where they were supposed to be at any given time during the day.

The focus on monitoring space/time boundaries and rhythms dominated not only the time and activities of both principals, but also the agendas of staff meetings at both schools. This emerged primarily from the teacher questionnaire but also from observed meetings. The questionnaire item was phrased: ‘Can you list five issues that have been addressed in staff meetings that you can remember? They can be big or small issues; just write down what comes to mind’. The majority of teachers at each school – 32 out of a total of 42 who responded to this question – mentioned learner and teacher absenteeism and late coming as an issue discussed in staff meetings, and another three mentioned related topics such as ‘teacher misconduct’. No other item was mentioned with anything like the same frequency.

**Visual coding of staff rooms**

Visual displays in the staff rooms at both schools reflected a construction of teachers’ work primarily in terms of space/time forms. The walls and notice boards of both staff rooms were covered with timetables for examinations, subject meetings, staff meetings, as well as calendars and lists of events or fixtures. At School A the most prominent notice in the staff room was a large list
of the names of all staff recording the number of times individual teachers had arrived at school late in preceding months.

Notices relating to the regulation and scheduling of time outnumbered all other material on the notice boards. These included (a) official notices from the provincial and national education departments and the South African Democratic Teachers’ Union (SADTU), many of which related to conditions of work, (b) advertisements for credit schemes, bank loans, home improvement schemes, car schemes, cell phone services and medical aid schemes and (c) a miscellany of other notices including motivational poems, cartoons and articles relating to education cut from newspapers, advertisements for staff development courses, a few photos taken at school events and, in one case, paintings done by school students.

**Specialization of space/time boundaries**

Both principals’ efforts to police space/time boundaries were part of an ongoing response to the weakness of these boundaries. This was evident on multiple scales – the period, the day, the week, the month and the year.

**The period**

As was discussed in the previous chapter, periods were frequently abbreviated and occasionally lengthened at both schools. These changes were made in response to a range of factors such as bus strikes and unscheduled staff meetings. The changes were generally announced during the course of the day, and sometimes they were not announced at all. When teachers prepared lessons, they could never be quite sure how long the lesson period would be.

**The day**

The weak specialization of daily space/time movement boundaries was evident, also, in the daily rhythms of movement in and out of the school grounds and classrooms. It was generally observed during visits to the school that significant numbers of both learners and teachers tended to arrive late,
leave early and delay going to class after break. These impressions were tested on one day at each school when these movements were systematically recorded.

- On this day, the majority of learners at each school had not arrived at school when the first bell rang; this amounted to 65% at School A and 91% at School B.

- During the school day there was considerable coming and going of teachers and learners in and out of the school gates.

- At School A approximately 75% (836\(^7\)) of the 1098 learners that had entered the school in the morning left the grounds at break. On the basis of a comparison of a count of those who left and those who returned, about 47, or 5% of those that left, did not return to the school at the end of break.

- At School B the majority of learners also left the grounds at break, although there was such a crush that it was not possible to do a reliable count. Most learners congregated outside the gates or returned with food, but many wandered up the road and in amongst neighbouring shacks. After the bell rang, the learners moved slowly into the grounds. After five minutes a teacher came to the gate with a stick and started chasing learners inside. The teacher continued chasing latecomers in for the next fifteen minutes and then locked the gates. A substantial number of learners arrived at the gates after they had been locked.

- Four learners – one male and one female from observed classes in each school – were asked if researchers could accompany or ‘shadow’ them and also interview them during a break time. Three of these learners left the school grounds at break to visit the local library, games room and

\(^7\) Learners were counted by two observers. The number is approximate rather than precise.
poolroom, or walked to the houses of friends. Only one of the four – a girl – remained in the school grounds during break time.

- At both schools the day had no clear end. In terms of departmental regulations, staff members were not allowed to leave the school before three o’clock. In spite of this, 39 out of 46 teachers at School A and 15 out of 41 teachers at School B left before three o’clock.

- Learners left early at School A; over 100 learners were lined up waiting for the gate to be unlocked half an hour before the end of school bell. Many of these learners had left their classes early because their teachers were absent. The gates were unlocked twenty minutes before the official end of day, and by this time many more learners were moving out of their classrooms towards the gates. Learners at School B did not leave school prior to the end of day bell on the particular day this matter was observed, but this was linked to the fact that the day had been declared an ‘early closing’ day. On many other days, a trickle of learners was seen leaving the school prior to the end of the school day.

- Pedagogic activities were frequently disrupted by early closing at the end of the day. Bereavement related activities such as memorial services in the schools or early closing for memorial services in other schools were relatively frequent at both schools. Early closing days were also declared when teacher strikes were called, regardless of whether teachers at the schools were participating in the strikes.

The week and the month

Both schools routinely closed early on the last day of the month to enable teachers to cash salary cheques, pay accounts and go shopping. Another routine activity at both schools was the early ending of classes on Fridays to enable learners to clean classrooms once a week.
The year

At the beginning of the year, developments at the scale of the school were affected by weak space/time boundaries within the broader school system in the area. At both schools it took two to three weeks before tuition began at the beginning of the year. This was largely because enrolment numbers took some time to stabilize, which in turn made it difficult for school management to organize classes. A number of factors contributed to this. School B was particularly affected by the fact that many learners arrived late from the Eastern Cape, while parents of learners at both schools were waiting for the month end in order to be able to buy uniforms and pay school fees.

There was considerable movement between schools in the area during the first weeks of the year as learners who had achieved low results at one school attempted to move to other schools that had achieved higher pass rates the previous year. Some learners were awaiting documents in order to change schools. Those who were unsuccessful in their attempts to gain access to ‘better’ schools finally settled for schools that were not full.

At the beginning of 1999 enrolments at both schools in this study were initially disturbingly low. Low numbers affected teacher morale negatively, as posts were threatened. This led to a focus of management energies on recruitment activities rather than teaching activities. The principal at School B announced in assembly that learners should tell friends who had left after achieving a marginal fail that they would be granted a pass if they returned.

Summary

It is to be expected that technical and more especially administrative structures in schools concern themselves with securing an institutional space/time form specialized to pedagogic purposes. In an active practice community, however, it would be expected that these forms support, contain and are adapted to interactions relating to the control (or external framing) or development of practice. In the case of the two schools in this study, though, space/time practices were weakly specialized and weakly harnessed to the control or
development of pedagogic practice. A focus on space/time rhythms was also reflected in the visual displays, or coding, of display areas in staff rooms.

Interactions in the technical domain constituted pedagogic activities primarily in terms of pacing while interactions in the administrative domain constituted regulation of the social order primarily as the control of the presence, absence and movement of bodies. As in the case of the dominant pedagogic mode in the classroom, practices at the level of the school subordinated the discursive and interactional aspects of practice to its space/time rhythms. Unlike in the classrooms, though, these rhythms were not well established and self-perpetuating. Instead, principals at both schools were involved in an ongoing battle to police space/time boundaries. As there was little effective distribution of school management practices, this was largely a solitary and reactive battle.
Chapter Nine: Conclusions

When I began this thesis, the phenomenon that I wished to describe and explain had no clear name. It was the sense of aridity that pervaded many classrooms and schools in the particular contexts in which I sat watching lessons similar to those described in the preceding chapters. With few exceptions (particularly Christie 1998), I did not find this quality of school life and pedagogy described in education literature. Yet it seemed to me that this aridity was not only the context for pedagogic practice; it was often, at least to some degree, constitutive of that practice. I found a vocabulary to speak of this aridity in Lefebvre's references to the everyday, the mundane and banal, ‘le quotidien’. It was this connection that led me to the task of relating Lefebvre's concept of rhythmanalysis to established accounts and empirical descriptions of pedagogic practice. This task has constituted the work of this thesis.

The aridity that I wished to describe and explain was both a presence and an absence. It was an absence, or more often a deep attenuation, of substantive discursive content and pedagogically purposeful interaction, and it was a presence of unvaried corporeal and technical activity forms. The question that emerged as the focus of the study - ‘How are the space/time and technology use aspects of pedagogic practice related to discursive and interactional aspects’ - attempts to capture the relation between this presence and this absence, while at the same time extending the study to an interest in the constitution of pedagogic practice in general. Chapter one of this thesis introduces this question, relates it to the two schools that were selected as research sites and contextualizes it in relation to education research in South Africa.

The literature review in chapters two, three and four presents accounts of each of these aspects of pedagogic practice - discursive, interactional and space/time and technology use – in order to inform the subsequent analysis. Chapter two critically reviews Bernstein’s description of the recontextualization of discursive form and content and its transformation into pedagogic practice.
This account takes as its premise the origin of pedagogic discourse in macro level relations that are translated into symbolic forms and relayed into micro level activities in the classroom. Bernstein’s focus on the relay of power and control leads him to present contexts as produced by, rather than productive of, practice.

It is argued in chapter two that this privileging of discourse as organising referent for pedagogic practice is in tension with any attempt to position these contexts as constitutive of practice. This tension is evident in Bernstein’s own attempts to describe how pedagogic discourse is reconstituted at multiple levels throughout the process of recontextualization. Furthermore, I argue that Bernstein tentatively acknowledged that pedagogic practice is partly regulated by factors other than pedagogic discourse in his more recent discussion of pedagogic culture (Bernstein 2000). Finally, the chapter suggests that a theory of space/time and technology use is underdeveloped in Bernstein’s theory.

Having said that, Bernstein’s theory still provides, I believe, the most substantive and elaborate description of the discursive aspect of pedagogic practice – an aspect that must be regulative of the interactive and space/time and technology use aspects in order for pedagogic practice to effectively transmit vertically structured pedagogic discourses. This thesis builds on this theory, with particular reference to ways in which different modes of transmission, or framing, do or do not potentially give learners access to recognition and realization rules for the acquisition of particular pedagogic discourses.

Chapter three critically reviews post-Vygotskian situated activity theory, with particular reference to the ways in which social (specifically pedagogic) practices are shaped by interaction within practice communities. The chapter argues that these accounts tend to neglect the aspect of practice that Bernstein privileges, i.e. the discursive structure that underpins a particular practice. Consequently, social practices are implicitly taken to be segmental – or in Bernstein’s terms, horizontal - in structure. This neglect is not necessarily
consistent with the work of Vygotsky himself, who recognized specialized knowledge structures as mediating tools within practice development along with other contextual mediating factors. However, this aspect of Vygotsky's theory is not developed in situated activity theory. On the other hand, situated activity theory does provide a useful elaborate account of the often-tacit circulation, modelling and legitimation of practice strategies in practice communities. This chapter concludes that a complete account of pedagogic practice must describe the ways in which this circulation of practices works together with discursive regulation.

However, I argue in chapters two and three that neither of these two accounts adequately describes a third aspect of pedagogic practice: the contextual, material, corporeal aspect of space/time and technology use. On the basis of Lefebvre’s theory, reviewed in chapter four, it is argued that space/time and technology use aspects of practices are not only produced by the interactive and discursive aspects – as they are taken to be by Bernstein and the situated activity theorists - but also productive of these aspects in a dialectic and mutually contingent relation.

Lefebvre’s concept of rhythmanalysis is central to the conceptual work of relating these three aspects of practice to each other in this study. This concept captures not only the banality of repetition but also the disciplined creativity or ‘margin of manoeuvre’ (Macgregor Wise 1997 p. 76) involved in inserting difference into repetitive frames. This perspective provides a bigger conceptual frame for locating Bernstein's transformation of pedagogic discourse into pedagogic practice and Lave and Wenger's account of the circulation of practices within practice communities. It opens up a conceptual space for consideration of the ways in which space/time and technology aspects of practice articulate with the aspects that are privileged by Bernstein and the situated activity theorists. In this view, pedagogic practices that transmit vertical discourses are contextualized communications of abstract symbolic systems. These practices are necessarily a compromise between the logic of abstract symbolic systems and the structured exigencies of social and concrete contexts, between ‘the repetitive, the cyclical and that which
supervenes them’ (Lefebvre 2004 p. 75). Bernstein and Lave and Wenger provide different accounts of what it is that supervenes, of the organising referents for practice, but it is Lefebvre who provides an account of the necessary compromise entailed in the supervention of context by discourse.

Lefebvre’s rhythmanalysis relates present practices to past practices through repetition and habit, and relates the practices of individuals to collective cultures that are ‘… held together by their rhythms, the collection of resonances, the aggregate of meanings, texts, and practices that they make resonate to their particular rhythm or frequency’ (Macgregor Wise 2000 p. 306). These rhythms relate external organising referents to the movement of bodies in space and the affordances of available technology.

Chapter five presents the research design and argues for the appropriateness of particular data collection strategies within a general case study approach, given the theoretical purposes of the study, the nature of pedagogic practice as an empirical phenomenon and the importance of context to both question and phenomenon. The structure of the case study constructs a comparison between different pedagogic modes, with a lesser emphasis on a comparison between the two schools. In this chapter, possible threats to validity are identified and methodological decisions defended in relation to these threats. The chapter argues that a focus on space/time and technology use practices presents particular methodological challenges, specifically the need to describe what is happening when, from the point of view of a theoretical and methodological approach that privileges discursive and interactional events, ‘nothing is happening’.

Chapter six builds on the literature review to develop a conceptual and analytic framework. It interrogates each of the three sets of theoretical resources in relation to the other two to develop a conceptualization of pedagogy as a hybrid practice with three aspects: discourse, practice conventions circulated in a practice community and repetitive practice routines. Each aspect is potentially a dominant organising referent in a particular pedagogic practice event. The dominance of a particular aspect
constitutes a type, or mode, of practice that is evident in the degree to which
text delivery, the communication of evaluative criteria and regulation of the
social order are seen to be oriented towards that aspect. From this position, I
have developed a typology of ideal practice modes: discourse led, convention
led and repetition led. Each mode is constituted in the relation between a
repetitive, habitual, contextual substratum and two supervening referents for
the introduction of difference.

The analytic frame developed in this chapter brings together these three
different aspects of pedagogic practice by incorporating their empirical
realizations in a single description of pedagogic practice. This description
focuses on teacher-learner interaction and space/time and technology use
practices through which pedagogic texts are delivered and mediated,
evaluative criteria communicated and social order established. Finally, the
framework relates the three pedagogic modes to interactions and activities
between teachers and management within the technical and administrative
domains of the school beyond the classroom. In doing so, the thesis
differentiates between the ways in which these facets are related at the level
of practice performance in the classroom and at the level of practice
development in the school.

The analysis, presented in chapters seven and eight, suggests that all three
pedagogic practice modes were to be found in data relating to the two
schools, but that a repetition led mode of pedagogic practice was most
common in both schools. The analysis foregrounds the relation between
activities within the classroom and the affordances of available resources and
broader patterns of weakly specialized space/time use in each of the schools.
In a majority of lesson periods inert, unmediated pedagogic texts were simply
inserted into repetitive practice routines that co-ordinated contextual
affordances. These routines had become habituated within the pedagogic
culture of each school. However, in a minority of lessons, the affordances of
technology and patterns of movement and time use within the schools were
adapted, harnessed and extended – or resisted where necessary – as
teachers oriented each step of lesson activities to the communication of the
content, principles and mode of enquiry of particular pedagogic discourses. Finally, in convention led practice, teachers adapted available technology and patterns of movement to generate a particular activity for the transmission of a particular text, but did not gear the inner structure of the activities to the content, principles and mode of enquiry of particular pedagogic discourses in a sustained way.

In this context, as no doubt in any other, it was easier for teachers to conform than to deviate. Indeed, the one teacher who taught two lessons categorized respectively as discourse led and repetition led commented to observers that she was too tired, in the latter lesson period, to teach a lesson involving more sustained interaction and had therefore fallen back on a less demanding approach.

In both schools, particular practice routines, constituted in terms of space/time and technology use, were evident not only in a majority of repetition led lesson activities for which teachers were present and texts were delivered, but also in lesson periods in which teachers were not present or texts were not delivered. The broad rhythmic pattern of these routines varied little from one text, teacher or subject to the next. Where texts were delivered in these lesson periods, pedagogic discourse and communal interactions as external referents for pedagogic practice were deeply attenuated and subsumed into repetitive practice routines. Content was depleted, subordinated to form and disarticulated from its discursive referent. This repetitive and empty form generated the sense of aridity referred to above, best captured in the previously quoted words of a frustrated student:

We are sitting here doing nothing most of the time. Why doesn’t someone stand up in front and tell us something fascinating about this book!

Chapter eight presents an analysis of data relating to salient activities within the technical and administrative domains at the level of the school. This analysis suggests that there were considerable similarities at this level, too, across the two schools. In both schools interaction between teachers relating to pedagogic practice was limited, and what there was tended to focus on the
pacing of text delivery rather than the mediation of texts. Management activities in both schools, as evident in data relating to staff meetings and principals’ daily activities, were constituted primarily as reactive responses focusing on the need to monitor and police weakly institutionalized space/time boundaries and the movements of teachers and learners. Thus at the level of the school as well as the classroom, the daily activities were constituted primarily in relation to space/time and (in the case of the classroom) technology rhythms that were weakly specialized to pedagogic purposes.

There was one significant difference between the two schools, in that teacher presence in classrooms was more effectively monitored at School A and substantially more time was spent in class by observed teachers at this school. However, this did not translate into more time spent in teacher-learner interaction at this school. Teachers spent on average almost exactly the same amount of time actually interacting with the class as a whole in both schools. There was a similarity of activity structures involving very little teacher-learner interaction and very little text mediation, even when teachers were present and texts were delivered. This would suggest that time on task is a necessary but not sufficient condition for effective pedagogic practice. Once a pedagogic practice routine involving limited teacher-learner interaction and limited text mediation is established, the availability of more time does not by itself necessarily lead to the extension of that interaction.

**Implications of the study**

This thesis aims to produce theoretical rather than empirical generalizations. No empirical generalizations can be drawn from descriptions of practices generated on the basis of data collected primarily through observations of 33 lesson periods in two schools, albeit in the context of a broader and more extensive study, and no claim is made to such generalizations. Instead, the thesis has conceptualized the relation of contextual space/time and technology use practices to other aspects of pedagogic practice as a basis for a typology of modes of practice. The thesis will have succeeded in so far as
this conceptualization and typology are deemed to be useful for further work elsewhere.

I have suggested that the pedagogic mode that was most common in the two schools in this study did not give learners access to recognition and realization rules for particular pedagogic discourses, and that this mode is, in this sense, ineffective. The second most common pedagogic mode – convention led practice – generates a less arid pedagogic experience for learners but does not give learners access to recognition and realization rules for pedagogic discourse either. Finally, I have suggested that a discourse led mode of practice is potentially effective because it can give learners access to such rules. However, the analysis does not only describe each mode in terms of what it does or does not do, but also in terms of how it is constituted in relation to a particular school context.

The study therefore has implications for debates concerning why teachers’ transmission practices tend to conform to those that pervade the context in which they teach. In doing so it takes on board Bernstein’s notions of external classification and framing of pedagogic discourse and the situated activity theorists’ account of the circulation of practices. However, it extends these accounts to take into consideration the constitutive potential of the space/time and technology rhythms that under gird all social practice. It suggests that these rhythms characterize pedagogic culture in schools, and that the practices of any individual teacher are developed in relation to this culture. Teachers may conform to or resist prevailing rhythms, but they are not unaffected by them.

This conceptualization has implications for any attempt to change or improve the quality of pedagogic practice in South African schools, and therefore for equity. It suggests that change cannot be effected either through changing only the context of practice – for example by enforcing more time on task or by mandating particular practices – or by changing only the practitioner’s subject knowledge. Instead, change must address the articulation between these interrelated facets of practice as they are concretized in habitual contextualized routines and habits at the individual, institutional and systemic levels.
The hegemonic codings of technology and language, the character of social space, are internal as well as external. Resistance is not the struggle of a pure interior against a domineering external space ... ; it is not simply the rebuilding or rejection of tools and machinery; it is not simply the recoding of language; it is not simply thinking radical thoughts. Resistance must take into account our own habits (Macgregor Wise 1997 p. 76).

The possibility for intervention and change must also take into account the degree to which practices in a particular context are accessible to external control. In chapter two I draw a distinction between external framing and general external control of teachers. The latter differentiates between contexts that are or not accessible to the reach of external control. The former assumes that practice is accessible to external control, whether this is exercised directly (strong external framing) or purposefully ceded to the teachers themselves on the grounds of normative precepts within a regulative discourse (weak external framing). In other words, strong or weak framing is premised on strong general control. Where general control is weak, the reach of strong or weak framing into the classroom is attenuated. Strong general control (unlike strong framing) is also a prerequisite for systemic support.

Pedagogic practices observed in the two schools in this study are subject to weak general control, in that the reach of the pedagogic device of the state at the level of the department and the school into the classroom is weak. Thus modes of pedagogic practice cannot be explained primarily in terms of the ideological intentions of the state, as realized through the pedagogic device, i.e. in terms of a relay of power and control from the macro to the micro level. The individual teacher is weakly regulated by this relay. If anything, the project of the state in these schools has been realized, in past decades, through neglect rather than control of the development of pedagogic practice, and through the absence of adequate resources to support such development. In so far as departmental and school control does regulate activities in the classroom, this pertains primarily to pacing of syllabus coverage and not to modes of engagement with texts. In the absence of strong general control, teachers are left unsupported and isolated, cut off from the resources that invigorate pedagogic practice.
In the context of current education reform debates, this is a caveat against approaches to reform that conflate strong framing with strong general control, and assume that stronger framing will impact positively – if at all - on pedagogic practice in classrooms. There is a danger that an approach that privileges strong external framing will be realized as the requirement that particular strategies be followed, without sufficient attention to developing the teachers’ competence to generate such strategies. Teachers would be presented with uncontextualized models for practice (practice conventions), rather than the means to adapt the affordances of available technology and patterns of time and space use to pedagogic purposes. My concern is that this approach steers us away from taking into account ways in which pedagogic practice is an essentially variable and context specific activity.

This is an argument for stronger general control and support, rather than stronger framing. More specifically, it is an argument for integrated forms of support that strengthen teachers’ understanding of pedagogic discourse as referent, strengthens the practice community as a discursive community and enables teachers and practice communities to do the work of specialising space/time technology routines to the transmission of pedagogic discourses. What teachers need to develop is the capacity to manage the subvention of contextual practices to the specific requirements of particular texts and the generative principles of particular discourses.

**Limitations of the study and implications for further research**

Some of the implications of this study for further research are clear. Firstly, the conceptualization of practice developed here invites development in a range of different contexts, including high achieving schools in which pedagogic practice is generally considered to be effective and schools in which there are strong practice communities. The broad conceptual map drawn here lacks detail, partly because the research sites did not offer instances of strong discursive regulation of pedagogic practice at the level of
the school or instances of pedagogy related interaction within strong practice communities.

Secondly, the study invites further research designed to ascertain whether the distribution of pedagogic modes described here is in fact representative of low achieving schools more generally. Such research would make a substantial contribution to debates that inform attempts to improve the quality of pedagogic practice and the equity of education outcomes in South Africa and elsewhere.

Thirdly, I hope that this study will inform debates about the nature of pedagogic practice, and in this way inform research in this area more generally.

Fourthly, while this study has produced descriptions of different modes of pedagogic practice and related these to the context of the school, it has not addressed the issue of why there is variation in teacher practice and why modes of practice that are not compatible with the pedagogic culture can be found in a particular context. It has not, for example, attempted to relate modes of practice to the subject knowledge of teachers. Clearly this is an important question for future work.

Fifthly, the data for this study included one or two lessons taught by each of eighteen teachers in two schools. This design enabled me to make comparisons across the practice of different teachers, subjects and schools. However, the theoretical insights drawn from this work could be deepened on the basis of other designs involving, for example, data drawn from observing a much smaller number of teachers over a larger number of lesson periods. Such a design could also incorporate a more intensive study of the interactions of a smaller number of teachers within the school practice community, and examine more closely the discursive resources available to these teachers.
Finally, this study has considered only transmission, not acquisition. It has considered practices that do or do not potentially give learners access to recognition and realization rules for the acquisition of particular pedagogic discourses, but it has not examined this acquisition. Implicit in this account has been a strong sense of a terrifying banality of learners’ experience of schooling in most of the lesson periods observed for this study. The rhythms of acquisition remain to be studied. Ultimately any contribution this study makes will only be realized if and when its insights help to change this experience, so that learners do learn ‘something fascinating’ when they come to school.

In all these ways, this conclusion is not an end but - at best - a beginning.
Bibliography


Law, J. (2000) *Objects, spaces, others* (draft). Published by the Centre for Science Studies and the Department of Sociology, Lancaster University. Accessible at: [http://www.comp.lancaster.ac.uk/sociology/soc027jl.html](http://www.comp.lancaster.ac.uk/sociology/soc027jl.html)


Appendix A:

TEACHER QUESTIONNAIRE

Please note that this questionnaire is completely anonymous. Your responses will not be shown to anyone. We are not interested in individual teacher’s responses, but rather how teachers in your school in general respond to the questions. That is why we have not asked you to write your name on the questionnaire. Also there are no ‘right’ or ‘wrong’ answers to the questions. We ask you only to answer as honestly as possible – we are interested in what you think. Lastly, thank you for taking the time to fill this questionnaire in.

Xolisa, Heather & Ursula.

1. Gender

☐ Male
☐ Female

2. a) Number of years teaching: _________

b) Number of years teaching at this school: ____________

3. Where did you go to school?

   School _____________________
   Province ____________________

4. Where did you train to be a teacher?

   Institution: _________________
   Province: _________________
5. What made you decide to become a teacher (Please mention as many reasons as possible)?

6. How many periods do you teach a week? _____________

7. a) Where do you spend your breaks?
   b) Why do you choose to spend them here?
   c) What do you usually do during break?
8. a) Where do you spend your time after school (before you go home)?

b) Why do you choose to spend it here?

c) What sorts of things do you do after school?

9 a) Are you involved in any extra-mural activities?

Yes or No:

b) If yes, what are they?

c) Where do they take place?

d) When do they take place?
e) How many times have you been involved in this activity this term?

10. Can you mention some of the things that make teaching at this school easier for you?

11. Can you mention some things that make teaching at this school difficult, or some things that you would change if you could?

12. a) Do you ever meet with other teachers or the HOD in your phase or subject specialism?

☐ Yes
☐ No

b) Where do you meet?

c) When do you meet?
d) How often have you met this term?

e) What do you usually do or discuss during these meetings?

13. a) How often do you have staff meetings?

b) Where do these meetings take place?

c) When do they take place?

14. Can you list five issues that were addressed in staff meetings that you can remember (they can be small or big issues, just write down the things that first come to mind).

a) _______________________________________

b) _______________________________________

c) _______________________________________

d) _______________________________________

e) _______________________________________
15. a) How many in-service activities or courses have you taken part in this term?

b) Can you name them?

c.) What time of day did they take place?

d) Where did they take place?

16. Teachers face many issues on a day to day basis. What sorts of things take up your time at school besides teaching?
17. Often teachers need to give up some of their teaching time in order to attend to other matters. In your school what sorts of things take up some of your teaching time?

18. a) Where do you usually do your lesson preparation?

   b) What time of day do you usually do your lesson preparation?

19. a) Where do you usually do your marking?

   b) What time of day do you usually do your marking?
20. Can you say if there is any way in which Outcomes Based Education (Curriculum 2005) has impacted on, or changed, the way you teach? Remember there is no right or wrong answer.

a) OBE (Curriculum 2005) has affected the way I teach:

☐ Not at all
☐ A little
☐ Quite a lot
☐ A lot
☐ In every way

b) If it has affected the way you teach, can you mention in what ways.

21. Is the classroom in which you teach suited to the subject or subjects that you teach and the kinds of activities that you want to do with learners? Please explain why it is or is not suitable.
22. What kinds of resources do you need in your teaching (e.g. text books, computers, a science lab, etc.)

23. Can you list the resources that you have and those that are not available in the school.

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24. Teachers often compare the schools where they teach to other things. For example some teachers might say their school is like a jail, or their school is like a holiday camp. What would you compare your school to? (Write down as many things as you want to. If you can’t think of anything write down the things that first come to mind when you think about your school).